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# ENVIRONMENTAL ASSESSMENT BOARD

VOLUME: 279

DATE: Wednesday, January 16, 1991

BEFORE:

A. KOVEN Chairman

E. MARTEL Member

FOR HEARING UPDATES CALL (COLLECT CALLS ACCEPTED) (416) 963-1249

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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL  
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR  
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental  
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental  
Assessment for Timber Management on Crown  
Lands in Ontario;

- and -

IN THE MATTER OF a Notice by the  
Honourable Jim Bradley, Minister of the  
Environment, requiring the Environmental  
Assessment Board to hold a hearing with  
respect to the Class Environmental  
Assessment (NO. NR-AA-30) of an undertaking  
by the Ministry of Natural Resources for  
the activity of Timber Management on Crown  
Lands in Ontario.

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Hearing held at the offices of the Ontario  
Highway Transport Board, Britannica Building,  
151 Bloor Street West, 10th Floor, Toronto,  
Ontario, on Wednesday, January 16th, 1991,  
commencing at 9:30 a.m.

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VOLUME 279

BEFORE:

MRS. ANNE KOVEN  
MR. ELIE MARTEL

Chairman  
Member



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I N D E X   O F   P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
<u>CRANDALL BENSON</u> , Resumed	50019
Continued Cross-Examination by Mr. Freidin	50020
SCOPING SESSION	50179





I N D E X   O F   E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
1656	One-page document entitled: Forest Management Statistics for Three Northern Temperate Forest Jurisdictions.	50125



1 ---Upon commencing at 9:30 a.m.

2 MADAM CHAIR: Good morning. Please be  
3 seated. Mr. Freidin, before we get going, there are  
4 two matters I want to take care of.

5 The first is, Mr. Benson, you won't be  
6 able to sit on Monday and it doesn't look as though  
7 we're going to be finished before Monday, so I think we  
8 should cancel the hearing on Monday and start again on  
9 Tuesday morning. That will be our first day back, so  
10 it will be a late start Tuesday morning.

11 MS. SWENARCHUK: 10:30?

12 MADAM CHAIR: Thereabouts. And the  
13 second thing is, I wanted to read a statement into the  
14 record.

15 My husband and I are members of a small  
16 neighbourhood group who have been trying to change the  
17 parking regulations on our street. Two years ago the  
18 group retained Karl Jaffray and David Tang of the  
19 lawfirm of Houser, Henry, Loudon and Syron to assist in  
20 applying to the City of Toronto for changes.

21 Other lawyers at this firm represent the  
22 proponent for the Timber Management Hearing. For this  
23 reason I consulted with the former Chairman of the  
24 Environmental Assessment Board and the Timber  
25 Management Hearing to ensure there would be no conflict



1 for me to continue my involvement in the neighbourhood  
2 project.

3 I was told that it was appropriate  
4 because there was no connection between the parking  
5 issue on my street and the work of the Timber  
6 Management Hearing. It had not occurred to me to  
7 inform the parties of this situation until Mr. Tang  
8 recently learned of my position as Chair of the Timber  
9 Management Hearing and suggested that I might want to  
10 do so, and I have taken his suggestion seriously and I  
11 think it's a good idea.

12 As it stands, my neighbourhood group has  
13 been unsuccessful in persuading the City to solve the  
14 parking problem on our street.

15 MR. FREIDIN: It's no laughing matter,  
16 Madam Chair.

17 MADAM CHAIR: If in the future our group  
18 decides that further work is to be done by Mr. Jaffary  
19 and Mr. Tang, I will advise the parties to the Timber  
20 Management Hearing and ask them to inform me if they  
21 have any objections. If objections are raised, my  
22 family will discontinue our participation in the  
23 neighbourhood project.

24 MS. SWENARCHUK: We will definitely see  
25 you court over this.

1 MR. FREIDIN: I thought you were going to  
2 say you had disengaged yourself from the hearing.

3 MADAM CHAIR: That is not an unattractive  
4 option, Mr. Freidin. Any parties like to raise that  
5 possibility?

6 Thank you.

7 MR. FREIDIN: Madam Chair, thank you for  
8 the indulgence in terms of the late start this morning.

9 CRANDALL BENSON, Resumed

10 MR. FREIDIN: I understand, Mr. Benson,  
11 you wanted to speak to one of the answers or a couple  
12 of the answers you gave yesterday before I continue?

13 THE WITNESS: Yes. Madam Chair, I would  
14 like to hopefully give a better answer to a question  
15 Mr. Martel asked yesterday, and that concerned the  
16 seeding distance from a tree, and I gave a rather  
17 confusing answer.

18 If you're looking at a spruce tree, the  
19 seeding distance, you would expect more seeds closer to  
20 the tree and progressively less the further away you  
21 got from the tree.

22 If you're looking at a tree like a white  
23 birch with a smaller seed, a non-wing seed, or a tree  
24 like poplar or yellow birch, then your tree can  
25 travel -- or your seed can travel considerably further.

1 Thank you.

2 CONTINUED CROSS-EXAMINATION BY MR. FREIDIN:

3 Q. All right. So if you can turn to  
4 page 28 of the witness statement, Mr. Benson, which is  
5 where we left off. Do you have that, page 28, Figure  
6 2-7?

7 All right. In relation to old growth, am  
8 I correct, sir, that the issue about the old growth is  
9 one which is related to area in certain vegetative  
10 states as opposed to the volume in certain vegetative  
11 states?

12 A. For more of the biological reasons,  
13 yes, that's correct.

14 Q. And if you want a certain area in a  
15 certain vegetative condition, taking old growth as an  
16 example, would you agree with me, sir, that an area  
17 based model would be more appropriate than a volume  
18 based model?

19 A. I think either one could achieve it.  
20 This long-term sustained yield, again, is the  
21 theoretical biological maximum that that working group  
22 can produce, and this particular example is merely  
23 showing that if you wanted to have a -- produce older  
24 timber, it would affect the long-term sustained yield,  
25 the theoretical maximum that that working group could



1 produce.

2 And certainly if you were just trying to  
3 address the problem of old growth, well then, that's a  
4 different issue that I wasn't trying to address by  
5 this. I was trying to show what the effect would be of  
6 trying to have a longer rotation.

7 Q. But your wood supply model is a  
8 volume model, it doesn't indicate how much area you  
9 will have in those various age-classes?

10 A. Oh yes, you can -- it does indicate  
11 the ages too.

12 Q. It doesn't tell you the area that  
13 you've got in any age-class, you would have to do  
14 something in addition to what your volume model would  
15 produce in order to determine the area that you have in  
16 the various age-classes; is that not correct?

17 A. Well, it depends how the model is set  
18 up, but no, it has area, at least my particular model  
19 has area associated with it too by age-class.

20 Q. And can you advise me, is the concept  
21 of landscape management a concept which is concerned  
22 about areas which are in certain vegetative states more  
23 than a concern about the volume in certain vegetative  
24 states?

25 A. That would be the concern, you're

1 right.

2 Q. Would you turn to page 58 of the  
3 witness statement. You refer in the first full  
4 paragraph, the first statement states:

5 "Planning to retain a forest of all  
6 age-classes conflicts directly with the  
7 practice of harvesting and plantation  
8 management."

9 Am I correct that the phrase 'harvesting  
10 and plantation management', what you mean by that is  
11 managing the forest for timber production only?

12 A. No, I mean also if you're managing it  
13 strictly for plantations, that if you have an area  
14 you're putting into more intensive forest management  
15 and plantations, that you probably wouldn't have as  
16 many age-classes as what you would if you were managing  
17 the forest either planned or unplanned for natural  
18 regeneration.

19 Q. In MNR Interrogatory No. 38 -- and I  
20 haven't got a copy of this, I didn't have a problem  
21 with this particular matter. Do you have your copies  
22 of the interrogatories, Mr. Benson?

23 A. I believe I do, if you'll bear with  
24 me.

25 MADAM CHAIR: That was which exhibit, Mr.

1 Freidin?

2 MS. SWENARCHUK: It's not an exhibit.

3 MR. FREIDIN: It's not an exhibit because  
4 I didn't think it would be necessary.

5 MS. SWENARCHUK: Could you have copies  
6 made?

7 MR. FREIDIN: Yes, I'll have copies made  
8 at the break, Madam Chair.

9 THE WITNESS: I have both the question  
10 and answer.

11 MR. FREIDIN: Q. All right, good. The  
12 question referred you to that sentence, and asked:

13 "Please explain this comment."

14 And the first sentence says:

15 "By harvesting and plantation management

16 I mean management solely for timber

17 production for consumption by mills.

18 Management of the forest solely for

19 timber production relies on rotations

20 that are lower than rotations that would

21 be required to produce old growth too."

22 So you're saying that you were just

23 referring to the situation where the forest would be

24 managed solely for timber production and that would

25 involve everything being planted?



1           A. Yes. The emphasis -- I wasn't  
2 breaking it down as fine as what you are, I was just  
3 saying that a plantation that's being managed for  
4 harvesting would likely have -- or not have as wide a  
5 range of age-classes as what the natural forest would.

6           Q. All right. So we can just insert the  
7 words that you use in your interrogatory, and it would  
8 be accurate then to say:

9           "Planning to retain a forest of all  
10 age-classes conflicts directly with the  
11 practice of managing the forest solely  
12 for timber production for consumption by  
13 mills."

14          Would that be fair?

15          A. The word plantation was in there  
16 somewhere in your statement?

17          Q. All right.

18          "Management of the forest solely for  
19 timber production relies on rotations  
20 that are lower than a rotation that would  
21 be required to produce old growth."

22          MS. SWENARCHUK: Well, surely we should  
23 all see the entire response, Mr. Freidin, if this line  
24 of questioning is going to continue.

25          MR. FREIDIN: Okay.

1                   Q. The point I'm trying to make, Mr.  
2 Benson, is that this statement assumed that there would  
3 be no consideration of any other uses in the forest  
4 other than timber production, and it's on that basis  
5 you said that planning to retain a forest of all  
6 age-classes conflicts directly with the practice of  
7 harvesting and plantation management; do you  
8 understand?

9                   A. Yes, I see what you mean there now.  
10 Yes, and if it is solely established for industrial  
11 production and you're just managing it for industrial  
12 production, yes, it would clash with trying to manage  
13 it for all users, right.

14                  Q. And that is the situation that you  
15 were referring to here?

16                  A. Right.

17                  Q. Can you turn to page 14 of the  
18 witness -- I'm sorry. Yes, turn to page 14 of the  
19 witness statement, Item (b) at the bottom of the page,  
20 you make the comment:

21                         "Regeneration does not have an immediate  
22 effect on the volume available."

23                         And what we're talking about here are  
24 certain factors of OWOSFOP which cause variation over  
25 time, all right, and one of the things you've

1 indicated, Item (b):

2 "Regeneration does not have an immediate  
3 effect on the volume available."

4 And is that particular point demonstrated  
5 by Figure 2-10 on page 31?

6 A. Yes, that's correct.

7 Q. Is that another thing that you do not  
8 like about the OWOSFOP model, the fact that  
9 regeneration does not have an immediate effect on the  
10 volume available; is that a criticism?

11 A. It's a feature of OWOSFOP. I would  
12 consider it a deficiency of the model. It's not my  
13 main argument against using the model, and I think if I  
14 could maybe expand, I'm not arguing for a particular  
15 model.

16 The long-term sustained yield model that  
17 I showed there gives, as I said, the biological maximum  
18 production that you might expect from a forest, and I  
19 think it's a good way to show people: What can this  
20 forest produce; then within that you can show: Well,  
21 where are we, what are we trying to produce, are we  
22 going above that maximum level, are we below it or  
23 what, and you could use a variety of models within that  
24 to show those particular levels.

25 The long-term sustained yield level too,



1       that upper maximum level would have to be calculated  
2       every particular time period too, depending on the land  
3       base that you have in that working group, and that  
4       might affect the long-term sustained yield.

5               If you're losing area out of the working  
6       group, well, it would decline, and I think that's why  
7       in Forests for Tomorrow's terms and conditions they're  
8       asking for a tracking, or a track record more or less  
9       of what's going on.

10              Q.   Okay.   Well, just back to the  
11       specific comment that you made in the witness  
12       statement.   Are you suggesting that it's a good idea  
13       that regeneration should have an immediate effect on  
14       the volume available?

15              A.   No, I'm pointing out that it's a  
16       characteristic of that particular model and other  
17       models.   If you know that your regeneration is going to  
18       be effective, you can take that into account so that  
19       you could, in effect, have your allowable cut adjusted  
20       according to what your regeneration effect is.

21              Q.   And that would affect how much you  
22       could harvest, sort of, today based on what you  
23       anticipate in the future?

24              A.   It can, yes.

25              Q.   All right.   I'm just exploring with

1       you. Do you feel that that is something which should  
2       be done, or you don't care if it's done?

3               A. I think it's something that could be  
4       done in certain indications. If you know for sure how  
5       your regeneration is going to develop, you would want  
6       to be very careful not to assume, say, you're going to  
7       double your yield as they did in the Figure 2-10 to  
8       illustrate what the effect is, but if you make an  
9       assumption like that and it doesn't turn out correct,  
10      then you would have serious problems.

11              Q. All right.

12              MADAM CHAIR: Sorry, Mr. Freidin. Mr.  
13      Benson, are you saying that your approach of looking at  
14      long-term sustainable yield could be added to the kind  
15      of yield forecasting that MNR is doing now; in other  
16      words, could you keep something like OWOSFOP and  
17      something like MAD in place but put another level of  
18      analysis of the form you're talking about with it and  
19      make sure that those decisions that are made annually  
20      and every five years and longer are calculated into  
21      that picture of what sustainable yield will look like?

22              Or is that a waste, we shouldn't do that,  
23      we should replace OWOSFOP with your approach?

24              THE WITNESS: I think from what was said  
25      yesterday you could conceivably use OWOSFOP under

1 proper circumstances. My problem when I looked at the  
2 management units, for any one particular management  
3 unit OWOSFOP, it doesn't convince me that it's going  
4 towards the long-term sustainable yield for that  
5 management unit.

6 Now, if you try to balance the wood  
7 supply out between management units, do you have --  
8 what's the long-term sustainable yield then for all  
9 those management units, that would be a different  
10 level, and you would have to know then: Well, are  
11 those different allowable cuts, are they balanced out?

12 Now, I can't find that out either, I  
13 don't know that. So it's not really a matter of saying  
14 that OWOSFOP is completely unsuitable, it's a matter  
15 really of not knowing, is the allowable cut -- or the  
16 harvest from an area, is it being done on a sustainable  
17 basis.

18 Then the long-term sustained yield is a  
19 fairly simple calculation to make, presuming that you  
20 know (a) the production forest area; and, (b) the MAI  
21 for that particular working group, you can establish  
22 what that upper potential limit would be, and there are  
23 a variety of models that you could use.

24 I guess they are mainly technical  
25 questions as to which one is best or which one is

1 better for a particular management unit.

2 MR. FREIDIN: Q. Mr. Benson, can you  
3 turn to page 24.

4 MS. SWENARCHUK: Are you finished, Mr.  
5 Benson?

6 THE WITNESS: Is that satisfactory, Madam  
7 Chair?

8 MADAM CHAIR: Yes. Thank you, Mr.  
9 Benson.

10 MR. FREIDIN: Q. Page 24. Where you  
11 modeled a run with OWOSFOP and with your long-term  
12 sustained yield model. Do they both not predict what  
13 the level of supply will be in the future, in the longm  
14 term?

15 A. I'm sorry, do they...?

16 Q. Do both models indicate what the  
17 supply will be in the long term?

18 A. Yes, this one is showing the hectares  
19 not the volume. I think the one that predicts the --  
20 would be Figure 2-2 on page 2.3.

21 Q. Right.

22 A. And you're correct, they predict what  
23 the long-term supply would be.

24 Q. All right. And in the case of Figure  
25 2-2, both models predict what the long-term supply will



1 be in terms of volume according to 2-2?

2 A. In terms of volume, correct.

3 Q. Thank you. Am I correct, sir, that  
4 the long-term sustained yield model assumes a hundred  
5 per cent of the area harvested will be regenerated to  
6 the same working group?

7 A. You could change the assumptions on  
8 it somewhat similar to the OWOSFOP model that I run as  
9 to how much of the area you were going to have  
10 regenerated back.

11 Q. All right. I take it then that the  
12 long-term sustained yield model does not -- it's not  
13 necessary when you're using that model that you have to  
14 assume a hundred per cent regeneration of all areas  
15 harvested to the same working group as the working  
16 group harvested?

17 A. It's not necessary for you to do  
18 that, so I could assume that there's a regeneration  
19 level less than 100.

20 Q. Yes. Can you do that with your LTSY  
21 model?

22 A. Yes, yes.

23 Q. So...

24 A. Now, if you do that though, what in  
25 effect you're doing is you're reducing -- if you don't

1 have any land coming into the area, you're reducing  
2 your land base in that working group, so that in the  
3 long term, if you're reducing your land base you're  
4 going to be reducing your long-term sustained yield  
5 level.

6 And there are different ways to approach  
7 that, where it would -- how do you want to picture  
8 that: Do you want to have a long-term sustained yield  
9 now for however long you're going to be losing that 10  
10 per cent of the land every five years.

11 Q. Losing it to that working group?

12 A. To that working group, right. Or you  
13 could actually run it, if you like, as a series of step  
14 downs as to what the level of supply would be for a  
15 certain period of years and then drop it down to  
16 another level.

17 Q. Am I not correct, sir, that the way  
18 yield regulation is done by the Ministry, or according  
19 to the Ministry process, is that every five years there  
20 is a reassessment made as to what changes have occurred  
21 in terms of working groups and so that change in land  
22 base, in terms of what the working groups are, is  
23 considered?

24 It's sort of a long way of putting it,  
25 but the change in working group is considered every

1 five years according to the present planning process;  
2 correct?

3 A. This is on the basis of what happens  
4 to the various NSR classes. I'm not quite clear...

5 Q. Can you answer before you go on, yes  
6 or no, it does occur then? Based on all the NSR  
7 classes, that means it is in fact taken into account  
8 every five years?

9 A. I would rather not give a yes or no.  
10 Do I have to give a yes or no response in this forum or  
11 can I reply as I wish?

12 Q. Can you tell me why you can't say yes  
13 or no to the question?

14 A. Well, that's what I'd like to do,  
15 yeah.

16 Q. Okay.

17 A. I'm not quite sure of how the NSR  
18 classes are measured to know or whether they're all  
19 measured. It came up the other day when we were  
20 dealing with the Spruce Falls unit and the  
21 reclassification of lands there, some of it was  
22 measured then some was extrapolated.

23 Well, there's a certain amount of error  
24 in there. So I realize that those changes occur and  
25 that there is updates that occur in the inventory, but

1 I'm not too sure of the level of accuracy of those  
2 changes.

3 Q. Leaving aside the question of the  
4 accuracy of the assessment, would you agree that the  
5 process requires a reassessment to be done every five  
6 years of the amount of area in each working group?

7 A. Yes, that's correct.

8 MADAM CHAIR: Excuse me. Mr. Benson,  
9 related to that point, is it your evidence that you  
10 believe there is a larger loss of land base than does  
11 MNR?

12 THE WITNESS: For any particular working  
13 group or over --

14 MADAM CHAIR: Well, when we were going  
15 through Ms. Seaborn's cross-examination yesterday she  
16 was referring to an answer to an interrogatory that you  
17 gave with respect to estimates of what area is lost to  
18 roads, insects and disease. That seemed to be a higher  
19 percentage than we had received from MNR.

20 THE WITNESS: I can't recall where my  
21 figure came from, it probably came from a publication  
22 and I forget what the exact figure was.

23 MR. FREIDIN: I might be able to help  
24 here, Madam Chair. I think there's a misunderstanding.

25 MADAM CHAIR: All right, Mr. Freidin.



1 MR. FREIDIN: Q. When Ms. Seaborn was  
2 talking about losses to roads and landings, you were  
3 talking about losses -- actual loss of land for the  
4 purposes of production; is that right? They go out of  
5 production because they're roads?

6 A. Right.

7 Q. When we're talking about an amount  
8 which is lost to a certain working group; in other  
9 words, you're not talking about areas being taken out  
10 of production, you're talking about the same area but  
11 now instead of it all being, say, in the spruce working  
12 group part of it would come back as spruce, the other  
13 part would remain productive but it will come back as  
14 another working group; is that right?

15 A. Right. And I think the question then  
16 I believe from Ms. Seaborn was with regard to how much  
17 land is lost out of various working groups. That was  
18 my recollection. I can't recall...

19 MADAM CHAIR: You responded in two  
20 different ways, Mr. Benson. One had to do with Ms.  
21 Seaborn's question about unplanned conversions and you  
22 were talking then about the species and what came back  
23 in an unplanned fashion, that was one aspect; and then  
24 the other aspect was, she referred to a 1972 Timber  
25 Management Production Policy assuming that five per

1 cent of productive forest land base is lost for some  
2 period of time, and you gave figures of 12 per cent.

3 MS. SWENARCHUK: Madam Chair, I wonder if  
4 I can assist him by providing him with the  
5 interrogatory that Ms. Seaborn was relying on

6 MADAM CHAIR: Oh, thank you.

7 MR. FREIDIN: What was it?

8 MS. SWENARCHUK: Exhibit 1654, which is  
9 MOE Interrogatory No. 6 referring to page 42 of the  
10 witness statement.

11 "If the land base is reduced by an  
12 unplanned conversion to another working  
13 group the allowable cut is not a  
14 realistic calculation but merely a  
15 mathematical exercise."

16 And MOE's question is:

17 "Please estimate by working group the  
18 extent to which land base in the area of  
19 the undertaking is being reduced by  
20 unplanned conversions."

21 Shall we review his response as well?

22 MADAM CHAIR: Yes, the Board would like  
23 some clarification.

24 MS. SWENARCHUK: Would you read out the  
25 response on that.

1 MS. SEABORN: I think you're correct  
2 though, Madam Chair, there were two separate issues.  
3 There was an issue about planned conversions that  
4 related to the interrogatory; there was another area of  
5 questions that related to estimates in the 1972 Forest  
6 Production Policy as to losses of areas to timber  
7 production.

8 I had put to Mr. Benson figures, one in  
9 particular with respect to roads and landings, the five  
10 per cent, and then there were two other percentages  
11 that Mr. Benson quoted in his evidence in relation to  
12 that issue, the 12 per cent figure and then the 20 per  
13 cent figure.

14 MADAM CHAIR: From British Columbia.

15 MS. SEABORN: 20 per cent figure was the  
16 B.C. figure, site degradation -- that was based on site  
17 degradation.

18 I believe Mr. Benson's evidence was that  
19 we have no similar figures in Ontario and so he had  
20 looked to a figure in British Columbia. But there are  
21 two separate issues there.

22 THE WITNESS: The response for that one  
23 question that I had given in the interrogatory was:

24 "If one uses the SOARS report as the  
25 basis, the estimated conversion to other

1 working groups would be extremely high.  
2 My estimate of conversions to another  
3 working group are 30 to 50 per cent of  
4 black and white spruce, 20 to 30 per cent  
5 of jack pine, 40 to 60 per cent of red  
6 and white pine. Balsam fir, poplar,  
7 white birch would be, again, in the  
8 working groups. It would be desirable to  
9 have an accurate measurement of these  
10 conversions."

11 And I believe yesterday when I answered  
12 that I also said that I really think you should have  
13 much better measurements of what those changes between  
14 working groups are, and the only management plan that I  
15 have examined over a period of time, the Temagami one,  
16 is the only one where I feel I have a better  
17 understanding of what is happening within a working  
18 group where the land is going.

19 MR. FREIDIN: Before I ask any more  
20 questions I want to make sure that you've got your  
21 concerns addressed, Madam Chair.

22 MADAM CHAIR: Yes. I just want to make  
23 sure with the answer you have just given us that -  
24 getting back to Mr. Freidin's discussion - when you're  
25 talking about the error that you might measure in



1 reclassifying NSR classes, is that the sort of error  
2 you're talking about?

3 THE WITNESS: I think it's a matter of --  
4 it's an error in measuring it and it's also a matter  
5 of: Do we know what to expect with this land, where is  
6 it going, or do we just measure it every five years and  
7 throw it into the pot, do another recalculation of what  
8 the allowable cut is rather than trying to predict in  
9 the long term how much land base we're going to try to  
10 keep in that working group.

11 There's the two aspects and how reliable  
12 are the figures that we have now; and, secondly, how  
13 predictable should they be as to what working group is  
14 going to go where.

15 MADAM CHAIR: And it's your opinion that  
16 we don't have reliable information on those matters?

17 THE WITNESS: In my opinion, I don't have  
18 that reliable information and it wasn't evident to me  
19 in the management plans.

20 MR. FREIDIN: Q. And I take it then that  
21 what you're saying is that you think it would be  
22 important that when a forester does in fact do a plan  
23 and is considering what's going to happen in terms of  
24 working group to the area he's harvesting, that there  
25 should be some assessment made as to what working group

1 the area will go into if it's doesn't come back to the  
2 same?

3 To give you an example, a hundred  
4 hectares of spruce, certain regeneration methods can be  
5 used, the forester figures 75 per cent is going to come  
6 back into the spruce working group, the other 25 per  
7 cent is going to come back into another working group,  
8 and I understand you to be saying some indication  
9 should be made as to whether it's going to come back to  
10 jack pine or poplar or whatever?

11 A. Yes, exactly. If I put that in the  
12 equation for the long-term sustained yield, the area  
13 part of the long-term sustained yield, what area do we  
14 expect to have, say, in the spruce working group in the  
15 long term, so that would give you a true estimate of  
16 how much area you're going to be managing in the spruce  
17 working group.

18 Now, I guess you could complicate it and  
19 say: Well, we're going to gain some area too.

20 Q. Right.

21 A. But I think that is a type of  
22 estimate that you should have that shows in your  
23 management plan what the level is, what I would term is  
24 a sustainable level in the long term.

25 Q. Okay.

1           MR. MARTEL: If you don't have that, how  
2 can you plan then for wood supply in the future? If  
3 many units are going out, let's say, of black spruce or  
4 jack pine and are going to hardwood, how can we talk  
5 about meeting mill demands down the road?

6           MR. FREIDIN: I'm sorry, the question  
7 was, how do you know...?

8           MR. MARTEL: How can we plan to meet mill  
9 demands down the road if we don't know what's happening  
10 on the land base? It seems like everything then  
11 becomes immaterial, what we're talking about, if things  
12 are being converted to something we don't need in an  
13 area that depends on jack pine, for example.

14          MR. FREIDIN: I hope you don't interpret  
15 my questions as an indication of...

16          MR. MARTEL: No, no. I'm simply saying  
17 the whole process, if the design is to meet -- part of  
18 the design is to meet wood requirement for the mills,  
19 and if we don't know what's happening to what's coming  
20 back and, let's say - and the figures were startling  
21 yesterday - and it's not coming back to what we want,  
22 that doesn't seem to me to bode well for future wood  
23 supply where the mills are located or within commuting  
24 distance of where the mills are.

25          MADAM CHAIR: Mr. Benson, perhaps you

1 could briefly address Mr. Martel's questions by  
2 referring to how accurate your estimates were on  
3 unplanned conversions and also what you see as the  
4 outcome? As Mr. Freidin pointed out a little while  
5 ago, it's not always a deficit in terms of the working  
6 group that grows back even with unplanned conversions  
7 if you look over the larger area of the undertaking.

8 THE WITNESS: Yes. I agree with Mr.  
9 Martel, it's very important that we try to answer those  
10 particular problems, and this again is where I think  
11 just trying to determine that one simple figure,  
12 long-term sustained yield, is important, and to do that  
13 you have to get those figures of how much area are we  
14 going to have in a working group over time, what's the  
15 conversion rate we can expect between working groups,  
16 get that narrowed down, and then I think you can put  
17 together an upper maximum limit that you know when it  
18 comes to working with a particular mill, well then, you  
19 have to tie in where are the different wood supply --  
20 where's the wood coming from.

21 We did do some work, I had a couple of  
22 students working on this type of problem one time with  
23 one of the regions and trying to put together a wood  
24 supply model to pull together all the different OWOSFOP  
25 models for the different management units to try to



1 link them up to the different tables and the mills, et  
2 cetera, so that you could forecast and see what  
3 happens: If the wood supply changes in one spot, how  
4 is that going to affect a certain mill.

5 We didn't get that completed because we  
6 ran out of computer space, but we had a rather small  
7 computer at the time. It's important, and the pieces  
8 of information that go into determining what can we  
9 supply are important.

10 Now, I think part of the problem is we  
11 don't have the information as precise as what -- as  
12 precise as what we would like, or it's not as available  
13 as it should be to put it together that way.

14 I'm not sure that I responded entirely to  
15 your point, Madam Chair.

16 MADAM CHAIR: That's fine, thank you.

17 MR. FREIDIN: Sounds like it might be a  
18 matter that will be again addressed in reply to  
19 indicate what the Ministry does do in this regard.

20 Q. Just dealing with this MOE  
21 Interrogatory No. 6, the question that was asked was:

22 "Please estimate by working group the  
23 extent to which the land base in the area  
24 of the undertaking is being reduced by  
25 unplanned conversions."

1                   Okay. I'm just concerned about their  
2                   phrase reducing the areas of the undertaking. Really  
3                   the question you answered was estimate by working group  
4                   the extent to which -- you indicated the extent to  
5                   which working groups have switched in the area of the  
6                   undertaking due to unplanned conversions.

7                   Is that not -- that is really what you  
8                   answered?

9                   A. Yes, that is what I took the question  
10                  to mean and that is why I answered that way.

11                  Q. That's fine. And you made your  
12                  estimate using SOARS as the basis?

13                  A. I said, if one used SOARS as a base  
14                  you would have -- I didn't use those figures from  
15                  SOARS, the regeneration results from SOARS, and all I  
16                  was trying to do when I was asked this question, I was  
17                  trying to think: Well, from what I have seen in the  
18                  field, what would it be, and it varies from one  
19                  management unit to another.

20                  And also, there is no way that I saw  
21                  every management unit or every possible situation in  
22                  there, and that is why yesterday I qualified my figures  
23                  and said: Well, I would really like to have a better  
24                  idea too. So they're just my guesstimates.

25                  Q. And would you agree that as we

1 proceed into the future and as we do more free to grow  
2 assessments that assuming we know what the working  
3 group was of the land to be harvested we will get a  
4 better handle in fact in developing the records which  
5 you would use to determine the extent of switches of  
6 working groups?

7 A. I think that is something that should  
8 and could be done now because the switching of working  
9 groups has been going on for years.

10 Q. What I'm saying is, that I suggest to  
11 you, sir, that there's a process in place now where  
12 free to grow assessments are made of areas which have  
13 been harvested. Those free to grow assessments -- am I  
14 correct those free to grow assessments will indicate  
15 whether the area is free to grow or not; correct?

16 A. That's correct.

17 Q. And when that assessment is made, if  
18 it's free to grow, am I correct the assessment will  
19 indicate the working group in which it is declared to  
20 be free to grow?

21 A. Depending upon how it's reported, but  
22 yes, it should.

23 Q. Well, I suggest to you that it is  
24 reported free to grow and a working group is ascribed  
25 to it. Are you not familiar with that aspect of the

1 free to grow surveys or are you not sure?

2 A. No. I was just thinking of, we had  
3 one document from the Industry the other day that  
4 indicated the nature of the regeneration on the area  
5 and it was not entirely by working group. So I am --  
6 as far as the way the Ministry reports it, yes, it's by  
7 working group, but...

8 Q. The process requires it to be  
9 reported by working group. Can you confirm that my  
10 understanding of the process, as it is presently  
11 practised, is correct?

12 A. Yes, within the Ministry that's  
13 correct.

14 Q. I suggest to you that is the same  
15 process for the Industry, and if you were looking at  
16 some records that didn't show that, that doesn't mean  
17 that there are not other records which do indicate the  
18 working group.

19 A. Right, I agree with that.

20 Q. Okay.

21 MADAM CHAIR: Mr. Benson - excuse me, Mr.  
22 Freidin - is it your understanding that on the free to  
23 grow form you see both the working group of the  
24 pre-harvest stand and the working group into which it's  
25 growing back?



1                   When we look at the forest stand maps we  
2 see what the working groups are for every stand. I  
3 can't recall at this point if that is recorded on the  
4 free to grow assessment.

5                   THE WITNESS: I cannot recall for sure  
6 either whether it's recorded that way or not.

7                   MADAM CHAIR: But wouldn't that respond  
8 to some of your concern about unplanned conversion?

9                   THE WITNESS: If it's worked in with the  
10 productive land base -- there's two different ways to  
11 look at it, and if the forester working on the area is  
12 trying to predict what area are you going to be working  
13 with in the future, well, you'll need that figure in  
14 more detail to try to figure out what that land base  
15 will be.

16                   If you're trying to show to the public  
17 what are you going to produce on that area, well then,  
18 you wouldn't need all the particular detail, you would  
19 want more or less the results of what that prediction  
20 are.

21                   MADAM CHAIR: But you need the two sets  
22 of data; you need to know what the working group was  
23 when it was harvested, and you need to know what  
24 working group it is at free to grow?

25                   THE WITNESS: Exactly.

1                   MR. FREIDIN: Q. Now, assuming, Mr.  
2 Benson, that you have on a computer what the working  
3 group was before you harvested it, that you keep  
4 records -- you assess, pardon me, whether it becomes  
5 free to grow and which working group and you enter that  
6 into a computer and you do that across the area of the  
7 undertaking, you would be able to obtain the figures  
8 you're talking about through asking the computer to  
9 give you a print out?

10                  A. And you're talking about doing it by  
11 management unit, a working group within a management  
12 unit?

13                  Q. Sure.

14                  A. Yes, you should be able to do that,  
15 to get figure. I am not too sure how far back you  
16 could go because it's like a graph. Maybe you're just  
17 getting one point and there might be a point that is  
18 higher or lower and you would want to know just how  
19 accurate your figure is but, yes, you could make an  
20 estimate that way.

21                  Q. All right, thank you. And just the  
22 last point on this MOE Interrogatory No. 6. You said  
23 if you use the SOARS reports as a basis, the estimated  
24 conversion would be extremely high.

25                  It's my information that the SOARS report

1 was based on plantations which were in fact established  
2 in the late 1960s and early 70s; is that correct?

3 A. I believe it was based on plantation  
4 areas and seeded areas, the ages were 14 and 15 or  
5 somewhere in that range, but that would put it back 15  
6 years from when the SOARS report was completed. I  
7 think it went back about 1974.

8 Q. And earlier.

9 A. And earlier, correct.

10 Q. And would you agree with me that  
11 silvicultural practices have in fact changed since the  
12 late 60s, the early 70s?

13 A. That is why I didn't use the SOARS  
14 report as a basis because there have been changes in  
15 practices and also there have been changes in  
16 harvesting techniques that do affect the silviculture.

17 Q. Right. Thank you, okay. Would you  
18 go to page 18 of the witness statement. On page 18 in  
19 the third line you make the comment:

20 "Increasing the length of the delay  
21 period causes an increase in the  
22 allowable cut and results in wider  
23 variation in the highest and lowest  
24 volumes expected."

25 Can you refer to the Timber Management

1 Planning Manual, which is Exhibit No. 7, to page 180,  
2 please. Do you have that?

3 A. I have that.

4 Q. It's this little --

5 MR. FREIDIN: I'm sorry, page 180 by my  
6 book. Is that what you have?

7 MADAM CHAIR: (indicating)

8 MR. FREIDIN: Q. And can we agree that  
9 if you look at the top part, the brackets, it says  
10 rotation, if you go down to the third bracket from the  
11 top it indicates that:

12 "Rotation includes the delay period, the  
13 establishment period and the free to grow  
14 period, the free to grow period being the  
15 time between the declaration of free to  
16 grow and rotation."

17 A. Yes.

18 Q. Okay. On page 18, you say:

19 "Increasing the length of the delay  
20 period causes an increase in the  
21 allowable cut."

22 When you made the calculation which led  
23 you to make that comment, did you change the rotation?

24 A. No, those were made with the same  
25 overall rotation age.



1 Q. All right. The formula for  
2 calculating the maximum allowable depletion requires  
3 you to change the rotation. Why didn't you do that in  
4 order to predict what the effect would be of  
5 lengthening the delay period?

6 A. I'm sorry, the formula requires you  
7 to change the rotation?

8 Q. Yes. Do you know what the formula is  
9 that's used to calculate the maximum allowable  
10 depletion?

11 A. The procedure for calculating it,  
12 mathematically?

13 Q. The algorithm or the formula that's  
14 used?

15 A. Well, there's a number of different  
16 calculations that occur for doing the calculation.

17 Q. But is there not one that is  
18 prescribed by the Timber Management Planning Manual by  
19 the process used in this province?

20 A. I have been following MAD since its  
21 inception and there has not been. There has been  
22 variations of one over the time period.

23 Q. When you did your witness statement,  
24 Mr. Benson, were you attempting to in fact reflect the  
25 situation in terms of the calculation of maximum

1 allowable depletion as it in fact is practised and  
2 proposed in the planning process being put before the  
3 Board by the Ministry?

4 A. No. Again, I believe this is a minor  
5 point.

6 Q. No, just wait a minute. You said no,  
7 it wasn't. All right. You did a witness statement  
8 here and you said if you do certain things to the delay  
9 period it has certain effects on allowable cut.

10 MS. SWENARCHUK: Let him finish, Mr.  
11 Freidin, the answer that he began.

12 MR. FREIDIN: I think I am.

13 MS. SWENARCHUK: Well, obviously not.

14 MR. FREIDIN: Well, Madam Chair --

15 MADAM CHAIR: Go ahead, Mr. Freidin.

16 MR. FREIDIN: Q. You prepared the  
17 witness statement and you've indicated that certain  
18 things will happen when you lengthen the delay --  
19 lengthen the period of delay. What will that do to  
20 allowable cut?

21 I'm assuming you're saying to the Board  
22 this is the way it works with the present system so  
23 that you can then comment whether you think it's good  
24 or bad. Is that the basis upon which you prepared the  
25 witness statement?

1                   A. If you lengthen the delay period and  
2 kept the total rotation period the same, then it would  
3 come out the way it's depicted in 2-12. Now, I agree  
4 with you --

5                   MADAM CHAIR: Which page is that on, Mr.  
6 Benson, 33?

7                   THE WITNESS: 33.

8                   MR. FREIDIN: Q. I'm sorry, did you  
9 have...

10                  A. No. In my particular example I'm  
11 showing what happens when you change the delay period  
12 if you change the rotation period too.

13                  Say if I changed the delay period,  
14 increased it five years, and increased the overall  
15 rotation five years too, well, you would get a  
16 different line on the graph.

17                  Q. What I'm saying to you, sir, is that  
18 the manner in which maximum allowable depletion is  
19 supposed to be calculated today?

20                  In accordance with the Timber Management  
21 Planning Manual, it would require you to lengthen the  
22 delay period -- pardon me, to lengthen the rotation if  
23 you lengthen the delay period, and you did not do so  
24 when you did your calculation and, therefore, your  
25 statement is incorrect when you say that increasing the

1 length of the delay period causes an increase in the  
2 allowable cut.

3 A. I'm not aware of that requirement  
4 within the OWOSFOP model.

5 Q. Are you aware of the algorithm which  
6 is in fact mandated to be used in the Province of  
7 Ontario for the purpose of calculating the maximum  
8 allowable depletion, Mr. Benson?

9 A. I'm aware of the weighted area  
10 method, the way they calculate the weighted area.

11 Q. And when you do that, that is  
12 called -- the average age area method is another term  
13 used for weighted average?

14 A. Yes, or weighted average age.

15 Q. All right. And do you not agree with  
16 me, sir, that the manner in which that is done requires  
17 a change to be made -- would result in a change being  
18 made to the rotation age if in fact you lengthen the  
19 delay period?

20 A. It really --

21 Q. To maintain the same growing period?

22 A. To maintain the same -- in the graph  
23 here, yes, if you wanted to maintain the same growing  
24 period, that's correct, and if I or anyone put in a  
25 delay period there and you increased that delay period



1 and you wanted -- you're starting with a fixed rotation  
2 at the top, yes, you would have to increase the  
3 rotation to maintain the same length of time in the  
4 growing period.

5 MR. FREIDIN: If I could just have one  
6 moment, please.

7 MADAM CHAIR: Excuse me, Mr. Benson. So  
8 in your example in Figure 2-12 you're not assuming the  
9 same growing period?

10 THE WITNESS: No, they would -- in effect  
11 what would happen is, as the delay period was  
12 increasing it would be assuming a shorter growing  
13 period, the establishment period wouldn't have any  
14 effect on the growing period, but the delay period  
15 would have an effect on the growing period; so by using  
16 a larger delay period - and I use the extremes there,  
17 zero and 15 - the one with the 15 would in effect be  
18 reducing the growing period by 15 years.

19 MR. FREIDIN: Q. Why didn't you lengthen  
20 the rotation when you did Figure 2-? 12.

21 A. I can't really give you a reason as  
22 to why I didn't lengthen it at that time.

23 Q. Okay, we will move on then.  
24 Regarding the discussion yesterday about the definition  
25 of maximum allowable depletion and our discussion about

1       whether there is a difference between allowable cut and  
2       maximum allowable depletion, you referred me to the  
3       definition section in the Timber Management Planning  
4       Manual, I think page 171 is where you have the  
5       definition of maximum allowable depletion, and 168 is  
6       where we started where there is reference to  
7       allocation.

8                   A.   Correct.

9                   Q.   I'm sorry, allowable cut.  Going to  
10       page 169, the third definition down, allowable cut, it  
11       says (see maximum allowable depletion).

12                  A.   That's right.

13                  Q.   And you took me to maximum allowable  
14       depletion.  Now --

15                  MADAM CHAIR:  Which page is that, Mr.  
16       Freidin?

17                  MR. FREIDIN:  Page 169 of the Timber  
18       Management Planning Manual, Exhibit 7.

19                  Q.   The third phrase, allowable cut,  
20       refers to -- it says (see maximum allowable depletion),  
21       which you then find over on page 171 which is the  
22       second phrase from the bottom which is defined.

23                  Is it your view or is it your evidence  
24       that because the phrase allowable cut referred you to  
25       maximum allowable depletion that the two phrases are

1 synonymous?

2 A. It's not entirely clear, but it's  
3 confusing. This same point was argued out I believe  
4 much earlier on in the hearings with Castrilli and  
5 Osborn for one panel, the same question came up and it  
6 wasn't clarified at that time either.

7 Q. Well, I'll deal with that suggestion,  
8 that it wasn't clarified. Take a look at the  
9 definition of maximum allowable depletion. It says:

10 "The calculated amount of area from which  
11 timber may be depleted over the five year  
12 term of a timber management plan by any  
13 means including harvesting, fire, insect,  
14 disease, inoperabilty or because of the  
15 allocation of the area to other uses to  
16 fulfill the objectives of management."

17 I suggest to you, Mr. Benson, that it is  
18 common knowledge that the calculation of an allowable  
19 cut is a calculated amount of area from which timber  
20 may be depleted over a five-year term; if you're using  
21 a five-year term, through the means of harvesting only,  
22 that an allowable cut is understood to be the amount  
23 that you can harvest, that the maximum allowable  
24 depletion in Ontario is an amount you can deplete  
25 through harvesting and through all the other things

1       which are stated there, and I'm somewhat surprised that  
2       you're not aware of that difference. Can you comment  
3       on that, please?

4                   A. I'm aware of the difference.

5                   Q. You told me it wasn't clear, you said  
6       to me it's not clear.

7                   A. It's not clear to me why it says on  
8       page 169 allowable cut and then (see maximum allowable  
9       depletion). When you look at maximum allowable  
10      depletion, it does not define allowable cut.

11                  Q. Mr. Benson, I'm concerned about  
12      whether you and I agree on what certain terms mean, not  
13      so much the niceties of the way there may be reference  
14      from one phrase to another in the Timber Management  
15      Planning Manual.

16                  Can we agree, sir, that allowable cut and  
17      maximum allowable depletion are two different things  
18      for the reasons that I've described to you?

19                  A. I agree they should be two separate  
20      items, but it's not clear by the definitions here that  
21      they are two separate items.

22                  Q. I suggest to you, Mr. Benson, that it  
23      is clear to every forester practising in this province  
24      in the field that there is a difference and that they  
25      know there's a difference, and they know what that



1 difference is and they would not be confused in any way  
2 by a reference to allowable cut saying (see maximum  
3 allowable depletion).

4 MR. MARTEL: Would it not be simpler just  
5 to put the definition of both in the amendment? Rather  
6 than go through this, why don't we just put allowable  
7 cut and put the definition in the Timber Management Act  
8 and then leave the other for MAD as it is, and that  
9 would clarify any problem in the future.

10 Would you not agree?

11 THE WITNESS: I would agree it would  
12 clarify that.

13 MADAM CHAIR: Mr. Benson, in your various  
14 calculations that are found in your witness statements,  
15 was it very clear in your mind how you used allowable  
16 cut versus MAD?

17 THE WITNESS: Yes, and we went through  
18 the table the other day between where it shows what the  
19 MAD calculation is and the various depletions that  
20 occur.

21 And I pointed out one of the problems is  
22 is that when you're doing the MAD calculation you're  
23 doing it on the basis of a land base that is not  
24 entirely production forest and then you subtract land  
25 from that production forest to come up with your

1 allowable cut and as a result your allowable cut can  
2 vary somewhat because you can subtract more land at  
3 different five-year periods, depending upon the area  
4 you're determining the MAD for.

5           Ideally it would be much more suitable to  
6 know what is the land base you're doing your allowable  
7 cut calculation for, so you don't have to do any  
8 subtractions after you have done the calculation. It  
9 just makes it a little bit clearer, I think, as to what  
10 is going on with the land base.

11           The actual effect on the calculation, if  
12 you assume you're going to be reducing the land base by  
13 the same percentage over a number of years, the actual  
14 effect on the allowable cut will be fairly small  
15 anyway, there won't be too much difference, but from a  
16 practical point of view of working with what land base  
17 are you using for timber production, it could be  
18 defined better.

19           At the present time and in the past there  
20 were attempts to try to define that land base better in  
21 the inventory of some units, and I had -- one of those  
22 units, the old Jocko unit, where we tried to take out  
23 all the lake reserves and stream reserves to try to get  
24 the land base that was actually production forest  
25 defined, but at that time with the FRI it became a

1 horrendous operation, it increased the detail on the  
2 maps, it doubled your ledgers and made it very  
3 difficult to work with.

4 With these GIS systems coming up it is  
5 possible, I think, to keep track of that type of data  
6 and manipulate it much more easily than what we have in  
7 the past. And I wasn't trying to suggest anything  
8 about the unit foresters in Ontario and what they do or  
9 don't know about allowable cut.

10 MR. FREIDIN: Q. Can you turn to page  
11 183 of the Timber Management Planning Manual. Just two  
12 quick questions and hopefully we will move on to  
13 another little subject area.

14 Do you agree, sir, that at the bottom of  
15 page 183 of the Timber Management Planning Manual we  
16 have the formula which is used to calculate the  
17 weighted average calculation that you had referred to,  
18 or as described there, the average age area method?

19 A. That's correct.

20 Q. And that is the formula which is  
21 inserted into the OWOSFOP wood supply model?

22 A. That's correct.

23 Q. And just one last matter in terms of  
24 whether in fact there was any clarification through the  
25 Ministry's evidence regarding the distinction between

1 allowable cut and maximum allowable depletion. Did you  
2 review the evidence of Dr. Osborn in Panel 3?

3 A. I was there for part of the  
4 presentation, and so I have heard some of it.

5 Q. All right. Did you read the  
6 transcripts in order to be fully aware of all of his  
7 evidence, or is your awareness of his evidence based on  
8 the period of time that you were at the hearings?

9 A. I wouldn't have read all the  
10 transscript, I'm sure.

11 Q. If I suggest to you that Dr. Osborn  
12 did explain the difference or the distinction between  
13 allowable cut and maximum allowable depletion, it may  
14 very well have occurred when you weren't there?

15 A. That is quite possible, it could  
16 have, yes.

17 MR. FREIDIN: Thank you.

18 MADAM CHAIR: Shall we take our morning  
19 break, Mr. Freidin?

20 MR. FREIDIN: Yes, Madam Chair.

21 ---Recess taken at 10:40 a.m.

22 ---On resuming at 11:05 a.m.

23 MADAM CHAIR: Please be seated.

24 MR. FREIDIN: Q. Mr. Benson, during your  
25 evidence-in-chief you made the comment that the



1 regeneration success rate used in the OWOSFOP  
2 calculation that you looked at varied across the  
3 province from 65 per cent to a hundred per cent -- to  
4 over a hundred per cent in some areas; is that right?

5 A. That's correct.

6 Q. Could you explain, sir, what is meant  
7 by regeneration success when that term is used during  
8 MAD calculations? What's your understanding of what  
9 that means?

10 A. My understanding of what that means  
11 is that applies to the amount of area that was  
12 harvested that is going to come back into that working  
13 group and, thus, if you use a lower percentage, you're  
14 losing some area; if you're using a higher percentage,  
15 you're gaining some area in that working group.

16 Q. Gaining some area in that working  
17 group?

18 A. In that working group.

19 Q. And we discussed before that if you  
20 lose some area to that working group, the part that you  
21 lose will regenerate to some other working group?

22 A. Yes. I think generally there may be  
23 a question of time; sometimes, it may take longer for  
24 some areas to regenerate than others, but they will  
25 regenerate.

1                   Q. Thank you. Now, did you indicate in  
2                   your evidence, or is it your opinion that if you plan  
3                   to regenerate 65 per cent -- if the regeneration  
4                   success rate that you've put in your MAD calculation is  
5                   65 per cent, that that means you're not managing the  
6                   other 35 per cent?

7                   I understood you to make that suggestion  
8                   in your evidence. I want to be clear whether in fact I  
9                   interpreted your evidence correctly.

10                  Mr. Benson, I see you're looking through  
11                  your witness statement or something you have in there.  
12                  Perhaps without looking there, let me put the  
13                  proposition to you.

14                  You'll agree that if you put a  
15                  regeneration success rate of 65 per cent in your MAD  
16                  calculation for a particular working group, would you  
17                  agree with me that that does not mean that you aren't  
18                  managing the other 35 per cent of the area?

19                  A. For another working group in that  
20                  case?

21                  Q. That does not mean that you are not  
22                  managing the other 35 per cent?

23                  A. Right, what it does mean --

24                  Q. When you say right, you mean...?

25                  A. To a point, with the following

1 explanation.

2 Q. Okay.

3 A. That it does mean that you are not  
4 managing that 35 per cent for the working group you're  
5 doing the calculation for.

6 Q. Would you agree with me, sir, that  
7 there are situations where you harvest a particular  
8 area which is in a working group, let's say it's  
9 spruce, and that based on the present technology and  
10 silviculture it is impossible to get back all of the  
11 area back to the same working group, you're going to  
12 lose some of that area to that working group, it's  
13 going to switch into another one?

14 A. Yes, I would agree that can occur.

15 Q. And when that occurs -- all right,  
16 fine. Thank you.

17 Can you turn to page 42 of the witness  
18 statement. Now, under Item No. (c) you indicate on  
19 page 42 under Item (c)(i), the third line of that you  
20 say:

21 "If the area of a working group decreases  
22 without being planned for, it indicates a  
23 critical problem in the management of the  
24 area."

25 My question in regards to that is: If in

1 calculating the MAD you predict that all the area  
2 harvested in a particular working group will not  
3 regenerate to that working group, would you agree that  
4 that would be a planned reduction in the sense that  
5 your planning recognized that that was going to occur?

6 A. It would be a planned reduction in  
7 that working group, yes.

8 Q. And if in preparing a timber  
9 management plan an estimate was made of how areas of  
10 all working groups would change due to additions and  
11 reductions, would you agree that that exercise would be  
12 described as planned changes in working group areas, in  
13 the sense that your planning recognized or anticipated  
14 that that was going to occur?

15 A. So if -- make sure I'm clear on what  
16 you're saying. If your plan shows the various losses  
17 and gains to a working group, it would show what the  
18 planning arrangement is for the various working groups?

19 Q. Well, let's say -- all right. If the  
20 plan showed that, that would be a planned change in the  
21 working groups in the sense that your planning  
22 recognized or anticipated that the changes were going  
23 to occur.

24 A. Yes, if it was down and documented  
25 that a change was going to occur, it would indicate



1 that, yes, they had planned to reduce a working group  
2 or if they went to the detail of including additions of  
3 another working group, then you could say, yes, it is  
4 planned to increase the working group.

5 Q. And if it's in the timber management  
6 plan, it's documented there, it might be that it's  
7 planned but it's not very well documented?

8 A. I would agree with that.

9 Q. In the same paragraph you make the  
10 comment, going down about four or five lines, in the  
11 middle of the page it says:

12 "If the land base is reduced...", Do you  
13 see that part?

14 A. Yes.

15 Q. It says:

16 "If the land base is reduced by the  
17 unplanned conversion to another working  
18 group, the allowable cut is not a  
19 realistic calculation."

20 Oh, I'm sorry, I have a check mark there,  
21 we have already dealt with that issue.

22 Go down a little further, one more  
23 sentence further it says:

24 "A realistic and practical allowable  
25 cut...", Do you see that, starting on the

1 right-hand margin, the same paragraph:

2 "A realistic..."

3 A. Yes.

4 Q. It says:

5 "A realistic and practical allowable cut  
6 for sustained management would be based  
7 on an area of land that could be  
8 regenerated back to the original working  
9 group."

10 What are you suggesting in that  
11 particular sentence, Mr. Benson?

12 A. I guess my mind is framed by what I  
13 am looking at as sustaining the production of a  
14 particular working group. I'm looking at the LTSY  
15 maximum level and I'm saying that if you're reducing a  
16 working group, that you can't keep producing that  
17 particular level, well then, it's not a sustainable  
18 harvest, in my opinion, and that your real LTSY, the  
19 one that you can really sustain if you're reducing the  
20 land base would be at a lower, level and that would be  
21 the sustainable harvest, and the part that you're  
22 harvesting and not regenerating back to that same  
23 working group, I would put that in a separate category.

24 Q. You should harvest that other area,  
25 though?

1           A. No, I'm not saying you should harvest  
2     it, but I'm saying if it is harvested, I would put it  
3     in a separate category, it's not part of that  
4     sustainable production forest.

5           Q. Right. It would go into -- to use an  
6     example, if you have an area that has never been  
7     harvested in spruce, you go in there, and based on  
8     technology you can only get 70 per cent regeneration to  
9     spruce, 70 per cent of the area comes back to spruce,  
10    the other 30 per cent is an area which you're saying  
11    will not in fact contribute in the future to the next  
12    rotation and the rotation after that to spruce?

13          A. It could be that, or it could switch  
14    to another working group.

15          Q. Right. And so it should be kept  
16    separate. If in fact you're trying to figure out what  
17    the sustained volume or the volume that you can sustain  
18    from spruce for the next rotation and after that, you  
19    should exclude that 30 per cent; that's what you're  
20    saying?

21          A. That's correct.

22          Q. Right. But you weren't suggesting  
23    that you don't harvest the whole hundred per cent of  
24    the area. It says:

25          "A realistic and practical allowable cut

1                   for sustained management would be based  
2                   on an area of land that can be  
3                   regenerated back to the original working  
4                   group."

5                   There's no suggestion in your evidence  
6 anywhere that you don't harvest the entire area just  
7 because you can't get it all back to the same working  
8 group.

9                   A. I don't think I addressed that  
10 particular problem in that manner.

11                  Q. And will you agree with me that it  
12 would be unreasonable to say you should not harvest all  
13 the area just because you can't get it all back into  
14 the same working group?

15                  A. Well, I think we went through two  
16 scenarios there. The result of harvesting that working  
17 group, one, say if it took more than one rotation, two  
18 or three rotations for it to regenerate back to the  
19 same working group, that would indicate a rather  
20 fragile site. I would think that perhaps it's a  
21 question of: Well, should you really harvest that area  
22 at all from the point of view of maintaining trees on  
23 the area, is it really worthwhile, and how much are you  
24 affecting the site. If it's going to be converting  
25 into a different working group, do you need that



1 conversion to take place, do you need more area in the  
2 other working group.

3 There's a number of questions, I think,  
4 that would arise peculiar to each particular management  
5 unit and peculiar to how many of the biological  
6 concerns do you want to address.

7 Q. But if you have an area, hypothetical  
8 again, which is a spruce working group of a hundred  
9 hectares and the area is such that you believe that 70  
10 per cent could come back to the spruce working group  
11 and 30 per cent is going to come back to jack pine --  
12 to jack pine working group--

13 A. Correct.

14 Q. --it would be unreasonable to say you  
15 should not harvest the whole hundred hectares?

16 A. A hundred hectares for a working  
17 group is a little difficult to conceive of in that  
18 sense for a management unit.

19 Q. 10,000 hectares.

20 A. So say you're looking at a thousand  
21 hectares of that regenerating back to jack pine, it  
22 depends, I would think, if you're going to do that, if  
23 you're looking at just from timber production, two  
24 aspects would be: Well, do you need more jack pine, do  
25 you need to create more jack pine working group, and

1 Q. All right. I think maybe the best  
2 thing for me to do is to think about how I can word  
3 that a little more clearly, and maybe I'll come back to  
4 it. Okay.

5 A. Okay.

6 Q. Could you turn to Volume 169 of the  
7 transcript, please, page 30006, yes. Do you have that?

8 A. I do.

9 Q. This is Dean Baskerville, again we're  
10 talking about the area regulation approach. Starting  
11 on line 13, Dean Baskerville says:

12 "The structure in the sense of providing  
13 a manual that showed the kinds of things  
14 that needed to be reported, the structure  
15 in the sense of -- particularly in the  
16 sense of protecting against alterations  
17 of either the area or the rotations that  
18 are used to determine how much is  
19 harvested annually, the structure in that  
20 was particularly good in the sense that  
21 it was not easy to simply play with the  
22 numbers and get whatever area that you  
23 wanted."

24 Do you agree or disagree with the  
25 conclusion of Dean Baskerville?

1       what level of spruce do you have to harvest at the  
2       present time, are you harvesting the complete allowable  
3       cut.

4                   Q.   Do you agree that a timber management  
5       planning process which has a free to grow concept which  
6       re-evaluates the MAD land base every five years has a  
7       built-in protection to ensure that areas available for  
8       harvest are not overestimated?

9                   A.   That areas available for harvest are  
10      not overestimated, I'm not too sure what you -- can you  
11      expand on that, what you mean by that, areas available  
12      for harvest?

13                  Q.   Every five years you redefine the  
14      land base to try to assess how much area you should be  
15      allowed to deplete in a five-year term.  And if you do  
16      that calculation every five years, based on an -- and  
17      it takes into account all the changes, the additions  
18      and the deletions from that working group, do you  
19      accept the proposition that that is a built-in  
20      protection to ensure that a reasonable amount is being  
21      depleted, or you're permitting a reasonable amount to  
22      be depleted?

23                  A.   No, I couldn't say it that way, and  
24      perhaps it's a misunderstanding of what you're trying  
25      to say.

1                   A. I think I would have to read the  
2 preceding part to appreciate what it is he's talking  
3 about.

4                   Q. All right. And do you want the time  
5 to do that now? Is there a short portion that you want  
6 to look at?

7                   A. I can't make a prediction that way.

8                   Q. Okay, go ahead. If it doesn't take  
9 too long, do it now.

10                  A. Okay. I appreciate what area it is  
11 he's talking about, and you want to ask me regarding  
12 the whole of that sentence or...

13                  Q. The whole of that paragraph. He  
14 comments about whether there is protection against, I  
15 think, the misuse of area regulation and he's basically  
16 saying that there's good protection in there.

17                  Well, just read the words, I think the  
18 words are clear. Do you agree or not with what he  
19 said, that is my interpretation?

20                  A. In the sense of doing allowable cut  
21 calculations, it's a set method, yes, and you can't  
22 play with the numbers, no.

23                  Q. All right. Would you agree that with  
24 any yield regulation system you want to make sure that  
25 it is not easy just to fiddle around with the numbers



1 so that you can harvest more than is appropriate?

2 A. Yes, there needs to be a certain  
3 degree of protection that way. I think there also  
4 needs to be a certain degree of flexibility.

5 One thing that has changed, though - and  
6 it goes back to one of your earlier questions, if I  
7 could add to that - was when you referred to the  
8 average age area method on page 183, the equation of  
9 MAD--

10 Q. Yes?

11 A. --and you note the last part of that  
12 equation, it says:

13 "Times acceleration factor."

14 Q. Yes.

15 A. Well, that acceleration factor has  
16 varied through time, sometimes there has been a maximum  
17 level set for it, or they may change that factor for a  
18 particular management unit. So there is some changing  
19 that does occur.

20 I don't know if Dean Baskerville was  
21 aware of that at that particular time when he made that  
22 statement, but the point is: You do have to have some  
23 flexibility within an allowable cut method.

24 Q. And do you agree, sir, that it's Dean  
25 Baskerville's opinion that that protection in fact is

1 provided through the area regulation method which is  
2 employed in Ontario? That is what he says.

3 A. That's what he says, yes.

4 Q. And do you agree with it?

5 A. I would agree that there is  
6 protection when you have a set method because you're  
7 tied down to the particular numbers, and if you use  
8 that method: Well then, it's solid as your way of  
9 managing that forest, your responsibility then.

10 Q. It's my understanding, sir, that the  
11 manner in which the acceleration factor is calculated  
12 in accordance with the present process is based on the  
13 age-class structure of the forest; in other words, you  
14 look at the age-class structure of your forest and that  
15 will dictate what the acceleration factor is. Is that  
16 your understanding, sir?

17 A. At this particular time I would have  
18 to check because it has varied in the past for  
19 different management units. I've looked at where they  
20 would -- it wouldn't go above a maximum value and in  
21 the transition period, for some of the Crown units,  
22 whether you're using an earlier version of the OWOSFOP  
23 calculation, they were using -- they were adjusting the  
24 MAD factor according to the structure of the forest in  
25 some cases.

1 Q. When did that observation take place?

2 A. Well, in particular I would be  
3 referring to the 1980-1990 plan for the Temagami  
4 Management Unit.

5 Q. 1980-90 plan?

6 A. 1980 -- before the -- 1980-2000 plan,  
7 but it was worked out on a 10-year period also, not a  
8 five-year period.

9 Q. Mr. Benson, we're talking here about  
10 a process for timber management planning which is  
11 encompassed in a timber management planning manual  
12 which was changed drastically in 1986.

13 Are you or are you not aware that the  
14 acceleration factor, when you employ it according to  
15 the present process, the term of the acceleration  
16 factor is based on the age-class distribution of the  
17 forest?

18 A. No. What I was saying is, that's one  
19 element of that factor that has changed over time.

20 Q. All right. And I want to make sure  
21 that you and I agree on how it's done now. Can you  
22 confirm for me how it is done now, or are you not aware  
23 of how it is done now?

24 A. As far as I know you're right, that  
25 they use the acceleration factor as it is calculated.

1 I would...

2 Q. As it is calculated. And how is it  
3 calculated now?

4 A. Well, by the formula that is given I  
5 think; in other words, if they're not putting a maximum  
6 limit on the factor --

7 Q. What do you tell your students? Do  
8 you teach this part in your courses?

9 A. We teach several different methods of  
10 determining allowable cut.

11 Q. Do you tell them how it's done  
12 presently in the Province of Ontario?

13 A. I try to keep them current on the  
14 methods in Ontario and how it's done in Ontario, but  
15 it's sometimes difficult for me to keep up to date on  
16 what the exact procedures are. But, yes, I do try to  
17 keep up to date that way.

18 Q. Okay, thank you. Would you turn to  
19 Volume 164, please. Would you turn, please, to page  
20 29124. Do you have that, Mr. Benson?

21 A. I do.

22 Q. And we're talking about area  
23 regulation. Dean Baskerville was being questioned by  
24 Mr. Turkstra, 29124, line 9, and talking about  
25 regeneration and what kind of regeneration success you



1 might get after harvest. Dean Baskerville says:

2 "So that if there is a problem with  
3 regeneration, it is captured very  
4 quickly...", they are talking about now  
5 using the MAD calculation and the free to grow concept,  
6 "...and my 40-year forecast wouldn't  
7 happen. By the time you got to here,  
8 it already takes a piece of land out  
9 until it has been regenerated and shown  
10 to be free to grow. It is, I thought, a  
11 really neat protection, unfortunately I  
12 probably should have said a bit more."

13 I am suggesting to you that Dean  
14 Baskerville is basically indicating that the free to  
15 grow concept, as it is employed in Ontario, is a really  
16 neat protection to ensure that you're basing today's  
17 decisions based on a best prediction of the future?

18 A. Yes, he refers to a diagram. If I  
19 understand the context with which he's talking, he's  
20 talking about, if you do not -- or fail to regenerate  
21 an area of land to the working group that you removed  
22 it from, that there's a protection in the future  
23 determinations of the MAD and subsequent allowable cut.

24 Q. Yes, so you're not overestimating how  
25 much you can harvest today?

1                   A. I wouldn't take it that far, to say  
2                   that you're not overestimating what you can harvest  
3                   today because, again, I would fall back on my  
4                   conception of what an overharvest is.

5                   What I thought he was talking about here  
6                   is a protection when you're managing the area, that if  
7                   that land is not going back into the productive forest  
8                   land for that working group, that your allowable cut  
9                   calculation, depending upon your delay in establishment  
10                  period, that that area that was harvested is not going  
11                  to -- not regenerate it to the same working group, will  
12                  not move up to productive forest land base; thus, if  
13                  you're working with that area and you want to retain  
14                  your productive forest land base, you have to  
15                  regenerate that area. It's a protection in that sense,  
16                  yes.

17                 Q. Okay. Turn to page 29125, please, in  
18                 terms of whether or not the free to grow concept was  
19                 being used properly in Ontario. Based on his audit,  
20                 Dean Baskerville said, starting at line 20:

21                         "I am reasonably confident that it  
22                         reflects what happens. What I examined  
23                         in the audit to find out whether this  
24                         land, when it was harvested, was  
25                         finding its way back in there or whether

1                   it went this way...", talking about where  
2   it would go, to a different working group,  
3                   "...in every case the system did appear  
4                   to work."

5                   Now, did you do an examination when you  
6   did the plans to be able to say whether you agree or  
7   disagree with Dean Baskerville when he indicates that  
8   the free to grow concept, in terms of entering things  
9   back into the land base, seemed to be working in all  
10   the cases he looked at, or seemed to be working in  
11   Ontario based on what he looked at?

12                  A. Can I just read this to make sure  
13   we're on the same track?

14                  Q. Yes.

15                  A. Okay. And your question is...?

16                  Q. The question is: Do you agree that  
17   based on your examination that the free to grow concept  
18   in terms of entering things into the land base at the  
19   appropriate time is being followed, is being used  
20   properly in Ontario?

21                  A. I didn't examine it in that detail.  
22   As Dr. Baskerville points out, he was tracking their  
23   cutting through and he's referring again to a diagram,  
24   and I think he's talking about the system of accounting  
25   and not the particular accounting for a management

1 unit. Perhaps I am wrong, but certainly I could agree  
2 that the system for accounting is set up.

3 Q. All right.

4 A. How it works for a particular  
5 management unit is a different -- or whether it works  
6 for a different management unit, you would have to  
7 check that out.

8 Q. Right. That is something that you  
9 didn't look at specifically?

10 A. The way it's set up now, it's  
11 difficult to check that out specifically.

12 Q. Dean Baskerville felt that he was  
13 able to do that, as I read it.

14 "What I examined in the audit to find out  
15 whether this land, when it was harvested,  
16 was finding its way back in there or  
17 whether it went this way, in every case  
18 the system did appear to work."

19 A. Yes, he does indicate that.

20 Q. So he was -- all right. Page 29129,  
21 at the bottom of the page, starting at line 22, Dean  
22 Baskerville summarizes some of the evidence he's given.  
23 He says:

24 "So if I could just summarize, that area  
25 regulation certainly as it was applied by



1 the Ministry doesn't give an even flow of  
2 raw materials, but it does provide a  
3 controlled transition to a balanced  
4 forest structure and it does provide  
5 protection against poor response in  
6 cut-overs."

7 Do you agree with the view of Dean  
8 Baskerville as expressed in that statement?

9 A. I will qualify what I say. It does  
10 give a controlled transition to a balanced forest  
11 structure, as he says, and it does provide some of the  
12 protection that we went through, what again I disagree  
13 with, the transition procedure in that I'm not  
14 convinced for a particular management unit or for  
15 certain areas that the sustained yield for that area is  
16 being maintained.

17 And he's correct that there is a certain  
18 structure, I'm not agreeing that that's the best  
19 structure for ensuring the long-term supply of wood for  
20 a given area.

21 Q. When you say you're not sure that the  
22 sustained yield is being maintained, I take it you're  
23 talking about the yield being sustained at a set level  
24 as we described yesterday?

25 A. Well, that is the theoretical

1 maximum, and I had described earlier I believe: Well,  
2 what is the maximum that's possible at the present  
3 time, that that can vary over a time period depending  
4 upon the structure of the forest.

5 So I'm talking about a sustainable level  
6 of harvest of the forest that you do not want to  
7 decline but, if possible, to approach the maximum  
8 sustainable level, the long-term sustainable level, the  
9 maximum sustainable level approaches the long-term  
10 sustainable level.

11 I'm looking at it from that particular  
12 viewpoint. So perhaps it is in variance with the way  
13 that Dr. Baskerville was looking at it.

14 Q. All right. So I understand that the  
15 transition you would like to see would be where you  
16 don't get a dip below a certain level, and with the  
17 controlled transition to a balanced forest structure  
18 using age -- pardon me, area method you might get a dip  
19 somewhere in the future, depending on the unit, below a  
20 certain level. Is that really the sort of main  
21 difference?

22 A. No. If I went right to the core of  
23 the problem, it would be not so much this method or  
24 that method, but the assurance that for a forest or for  
25 a region, however it's being put together, that those

1 areas are being supplied on a sustained yield basis,  
2 that there is a continuity of forest from a management  
3 unit or from a region. If you're going to put it  
4 together that way, I would like to be sure of that.

5 And what I'm saying now is, I can't be  
6 sure of that at the management unit level or at a  
7 higher level, that I can't find that assurance within  
8 the management plan or at a higher level.

9 Now, perhaps it's my fault, but that's  
10 the core of the problem, and I think that is what  
11 Forests for Tomorrow is trying to ask for, that there  
12 is that assurance that the forest can sustain a  
13 production level.

14 Q. Okay. In that regard --

15 MR. FREIDIN: One moment, Madam Chair.

16 Q. Can you turn to Volume 16 -- while  
17 we've got out Volume 164, would you look at the next  
18 page, 29130, starting at line 23. I'm talking now  
19 about this wood supply situation. The former Chairman  
20 says.

21 "Dean Baskerville, looking at your  
22 conclusions on page 54, if as a result of  
23 your audit it did not appear that there  
24 was an even flow of raw materials  
25 although there was controlled transition

1 and protection against poor response  
2 of cut-overs, can the first one be  
3 adequately dealt with, the even flow  
4 deficiency, by making up that flow from  
5 other units?"

6 Dean Baskerville says:

7 "That would require me to know what the  
8 other units were producing. My answer  
9 would probably be, yes, if you looked at  
10 it. The gut feeling is that the  
11 flexibility is there. Actually I believe  
12 that maintaining the area regulation  
13 approach and superimposing a volume  
14 forecasting scheme could achieve what you  
15 are after, you would see what you had to  
16 give in terms of area control to make it  
17 happen."

18 Is there anything you disagree with about  
19 what Dean Baskerville said there?

20 A. Well, I don't have the same degree of  
21 confidence. I would like to have his degree of  
22 confidence, but I can't say that I have that degree of  
23 confidence.

24 Q. And in relation to the subject matter  
25 of even flow, that was a discussion which starts on



1 page 29131 where Madam Chair and Mr. Martel were asking  
2 a number of questions. Madam Chair asks questions  
3 about even flow on page 29131, talks about what gets  
4 harvested is what is required by the mill, and then Mr.  
5 Martel asks on page 29132, he says:

6 "Even when you get it all down in the  
7 final analysis...", this is at line 16,  
8 page 29132. Do you have that?

9 A. I do.

10 Q. "Even when you get it all down in the  
11 final analysis then to an even flow,  
12 depending on demand you might not cut an  
13 even amount even after you have got the  
14 controlled forest?"

15 Answer:

16 "That is correct."

17 "So that again I would argue that what  
18 we're talking about - I use the word  
19 dynamic frequently in this - we are  
20 talking about a dynamic system and  
21 control of a dynamic system over time."

22 Then he continues:

23 "We won't ever get it to that  
24 gorgeous static state in my Area 4  
25 diagram or any of those forecasts,

1 something will go wrong with the  
2 forecast, we will fail to be able to  
3 Implement a harvest schedule before we  
4 get 80 years into the future. What we  
5 need is a system that allows us to detect  
6 as soon as possible when that deviation  
7 from the forecast has occurred so that we  
8 correct for it."

9 And I suggest to you that the OWOSFOP  
10 calculation and the manner in which the Ministry of  
11 Natural Resources controls the harvest, in fact, is a  
12 method which does exactly what Dean Baskerville says is  
13 required; it's a system that allows you to detect as  
14 soon as possible when that deviation from the forecast  
15 has occurred so that we can correct for it; do you  
16 agree?

17 A. I didn't get the connection between  
18 what he's saying in the actual system that's in place.  
19 Perhaps I missed --

20 Q. I'm sorry, he doesn't say that.  
21 Let's break it into two questions.

22 A. Okay.

23 Q. Okay. Do you agree with what he  
24 said, leaving aside its relationship to the present  
25 system?

1                   A. The context of what he's saying, and  
2 we went over this before at one time, like: How many  
3 years do you want this flexibility, et cetera, but  
4 certainly you need a certain amount of flexibility in  
5 managing the forest for a variety of reasons. Market  
6 conditions alone or some type of disaster can change  
7 that, can change the condition of your forest.

8                   Q. And can I take it that the sort of  
9 thing that Dean Baskerville is talking about is what  
10 makes it very difficult to actually sort of set a  
11 target, set on a path to achieve that target and be  
12 absolutely sure that, you know, that that is what  
13 you're going to do on that unit right through to  
14 rotation, that dynamic nature that is subject to  
15 natural disturbance and things which makes timber  
16 management very difficult?

17                  A. Some of the difficulties, but I  
18 get -- I have the perception that you're taking  
19 long-term sustained yield and saying that this is a  
20 perceived path. The long-term sustained -- the  
21 long-term sustained yield is not a path, it's a line,  
22 it's a header, if you like, it's a warning area saying  
23 that you should not be harvesting above that level or  
24 you're going to be harming the forest.

25                  Now, ideally or theoretically you could

1 harvest at that level for ever and ever, but the LTSY  
2 level is a level, a header level, a warning level.

3 Q. Before we leave this whole area of  
4 OWOSFOP and sustained yield, can you explain to me what  
5 the relationship is between the maximum sustained  
6 harvest and the long-term sustained yield?

7 I know you've dealt with it in your  
8 evidence and I don't quite understand it.

9 A. Yeah.

10 Q. Okay. Can you run that by me again?

11 A. Sure. The LTSY, the theoretical  
12 maximum, your productive area, total productive area  
13 times the MAI for the rotation age you're going to use  
14 for that forest, that would give you your LTSY, your  
15 long-term sustainable yield.

16 And what I referred to as the maximum  
17 sustainable yield would be the level below that LTSY,  
18 the maximum sustainable yield would be a level that you  
19 determine that you can achieve at the present time on a  
20 sustainable basis with respect to the present structure  
21 of the forest, and any restrictions you might have on  
22 the harvest of that forest.

23 And I believe I gave the example before  
24 of harvesting into a certain age-class, that might be a  
25 restriction; if you can't harvest into certain



1 age-class, well then, that would lower your level of  
2 maximum sustainable harvest below the LTSY level. That  
3 would be one reason for lowering it.

4 Now, the maximum sustainable harvest  
5 level, again, you could draw that as a straight line  
6 but, again, realistically it is a level that you would  
7 want to determine every five years or whenever you get  
8 any new information that is going to have a dramatic  
9 impact on the calculation.

10 And I'm merely using that as an  
11 indication of a different approach to take, I'm not  
12 saying that you have to use that particular approach,  
13 per se.

14 The overall objective is to ensure that:  
15 Are the forests being managed on a sustainable basis,  
16 and there's a number of different ways that you can go.  
17 Myself I think the LTSY level is a level that can be  
18 used to show: Well, what is that upper limit, and it  
19 has been used by the U.S. Forest Service, B.C., and  
20 Alberta. I believe it gives them a level that they can  
21 aim for.

22 Q. Now, you made a comment that the  
23 maximum sustained harvest-- pardon me, I'm sorry, you  
24 said that the maximum--

25 A. Maximum sustainable level.

1 Q. The maximum sustainable harvest would  
2 be calculated based on the age-class structure of your  
3 forest?

4 A. It could be calculated on that basis  
5 if there was a restriction in the age-classes that you  
6 could harvest, for example.

7 Q. Right. Let's assume there are no  
8 restrictions on the age-classes that you can harvest,  
9 would you look at -- let's say, you're just managing  
10 for timber and timber only, would you determine your  
11 maximum sustainable -- when you determined your maximum  
12 sustainable harvest, would you have to take into  
13 account the age-class structure of the forest that you  
14 were managing?

15 A. Yes, you would.

16 Q. Okay.

17 A. Because...

18 Q. All right. I'll let you say because  
19 or explain why in a minute. When you determine the  
20 long-term sustained yield, is that in any way -- does  
21 the age-class structure of the forest you're managing  
22 come into play in calculating that?

23 A. No, because that is representing your  
24 ideal level, it's representing the maximum possible.  
25 If everything was ideal, that's the level you could

1 sustain ideally.

2 Q. All right. Long-term sustained yield  
3 then, it's theoretical and is it the level which you  
4 could sustain assuming you had a fully regulated  
5 forest?

6 A. A fully regulated forest that wasn't  
7 running into any rough times from fire, et cetera.

8 Q. Okay. Are you able to advise what  
9 the technical or systematic means or algorithm would be  
10 used to calculate the maximum sustainable harvest?

11 A. The particular method that you would  
12 use, and it can vary, is really based upon the same  
13 concept, that you're working with a level, an MAI times  
14 a productive area of land, and then that is constrained  
15 by the age-class distribution.

16 When it comes to applying it to an actual  
17 forest, it works somewhat the same as OWOSFOP or any  
18 other method does in which you're harvesting or trying  
19 to harvest from the older age-classes back.

20 For example, in the case of OWOSFOP, what  
21 you're doing is harvesting the older age-classes on the  
22 basis of area. With a yield method, what you would be  
23 doing is harvesting the older age-classes on the basis  
24 of volume calculated, therefore, what you have to do is  
25 to determine what volume would come from those older

1 age-classes, then see how that fits into your maximum  
2 sustainable level, and if you reach a given age-class  
3 where you're exceeding it, well then, you would only  
4 take part of an age-class to reach that particular  
5 level.

6 And that really is a basis of the  
7 calculation. It's somewhat more of a tedious  
8 calculation and certainly not something you could do  
9 and sit down and do with a hand calculator, computers  
10 make it much easier to do.

11 Now, the way I have it set up, you would  
12 have to run it through so that you find out: Well,  
13 what is that maximum sustainable level. If there's  
14 some constraint, if you didn't want to cut in the 61-80  
15 age-class, you could write a computer program so you  
16 could do it more automatic and faster and determine  
17 that level. There's a variety of ways you could do it,  
18 yes.

19 Q. When you were cross-examined by Ms.  
20 Seaborn you were being asked about the frequency with  
21 which one should re-evaluate in the future, how often  
22 you should be, you would be planning whether it would  
23 be one year, five years, ten years?

24 A. Correct.

25 Q. And I would like you to turn, if you



1 will, to Volume 169, page 30000, and on page 30000,  
2 starting on line 10, there's a discussion regarding the  
3 the modeling of wood supply, and if we go over to page  
4 30001, the former Chairman says at line 12:

5 "Is the period of five years, in your  
6 view, optimum for review, or should you  
7 do it more frequently or less frequently  
8 or why five years?"

9 Dean Baskerville:

10 "You really are ready for your degree,  
11 sir. Five years seems to be a period of  
12 time over which that change that's  
13 accumulated in the forest is large enough  
14 to be measurable. If you made it any  
15 shorter than that, it would be very  
16 difficult to get an overall assessment of  
17 change; or where the error in your  
18 estimate wasn't larger than the change  
19 you were trying to measure. If you went  
20 much longer than that, the control gets  
21 sloppy."

22 And he goes on.

23 "So the shortest period in which we could  
24 measure...", I'm sorry.

25 "It is generally considered to be the

1                   shortest period of time in which we can  
2                   measure and capture the difference that  
3                   is occurring."

4                   He's referring to five years. And do you  
5 agree with Dean Baskerville in that regard?

6                   A. Yes, with the exception that in the  
7 case of a management unit where there was - and I think  
8 this is already done - in the case if there's a  
9 disaster, a fire or something, where you have to go  
10 back or should go back and do the recalculation based  
11 on the new information.

12                  Q. Right. That is my information as  
13 well, that it is done. That it's done, okay. Do we  
14 agree on that?

15                  A. Can I think about that?

16                  Q. I know it's hard to agree with me.  
17 There was a discussion about whether the timber supply  
18 in the province was overmature or not, there was those  
19 two; one said overmature, one said immature.

20                  A. Right.

21                  Q. How would you define overmature, and  
22 let's talk about it now strictly in terms of timber. I  
23 know that there are other values, but I'm just going to  
24 break it down to make it understandable.

25                  Dealing with timber supply, how would you

1 define overmature based on your definition. Are you  
2 able to say whether there's a preponderance of  
3 overmature timber in Ontario?

4 A. Based solely on timber production  
5 alone, the overmature would be the timber that is above  
6 rotation age, rotation age being the mature level,  
7 you're growing wood to be mature and you're harvesting  
8 it. So above that particular point, it would be  
9 overmature. Now, that is the first part.

10 The second part of your question was...?

11 Q. All right. Are you able - and you  
12 might not be able to - are you able, using that  
13 definition, to indicate or provide your view as to  
14 whether there is a preponderance of overmature timber  
15 in Ontario?

16 A. Using that definition and working  
17 with timber production only for the management units  
18 that I examined, the majority of them, particularly in  
19 the conifer working group, would have a preponderance  
20 of overmature forest. There were some instances where  
21 it was not a great deal of overmature forest. For  
22 Ontario, it would be more difficult to say, because it  
23 would be more of a guesstimate.

24 Q. I'm sorry?

25 A. For Ontario it would be more of a

1 guesstimate, I was saying, for the management units  
2 that I looked at.

3 Q. Yes.

4 A. Did I make that clear?

5 Q. Right.

6 A. Okay.

7 Q. I'm almost to a new area, but a  
8 couple of more questions I think will get us to noon  
9 here, Mr. Benson.

10 Can you confirm for me, Mr. Benson, first  
11 of all, you looked at 19 management units; is that  
12 correct?

13 A. Correct.

14 Q. Can you confirm for me that 8 of  
15 those 19 units had a timber management plan in place  
16 which was prepared under the 1986 timber management  
17 planning process?

18 A. I would have to figure that out--

19 Q. All right.

20 A. --to make sure.

21 Q. Let me give you the numbers, maybe  
22 you can confirm this over lunch, confirm whether my  
23 information is correct; all right. If you just want to  
24 write this down.

25 A. Sure.



1 Q. 8 of 19 units you looked at had plans  
2 which were prepared under the '86 TMP process; of those  
3 8, you looked at 5 timber management plans only, and I  
4 came up with, based on your evidence, that you did not  
5 look at the Kiashke, the Hearst FMA or the Sioux  
6 Lookout TMP, that as a result, 1 of the 19 plans that  
7 you looked at were under the old planning process.

8 And could you confirm for me, where you  
9 were looking at the plans -- I think that is good  
10 enough. Can you just confirm that for me over the  
11 lunch?

12 A. Could I just ask some clarification?

13 Q. Yes.

14 A. The old process, you're referring to  
15 any planning process pre-1986?

16 Q. Yes.

17 A. Okay.

18 MR. FREIDIN: I think that would be a  
19 convenient place to break.

20 MADAM CHAIR: Let's break for lunch now  
21 and we will be back at 1:30.

22 ---Luncheon recess taken at 12:00 p.m.

23 ---On resuming at 1:30 p.m.

24 MADAM CHAIR: Please be seated.

25 MR. FREIDIN: Q. Mr. Benson, did you

1 have a chance to go over the numbers that I gave you  
2 about the management plans over lunch?

3 A. Yes, I did.

4 Q. And can you confirm whether my  
5 information is correct or not?

6 A. You said five for the TMP only that  
7 would be for '86 and after?

8 Q. I said that out of the 8 units that  
9 had plans -- you looked at 8 units where the plans  
10 which were in place were prepared under the new  
11 planning process since '86, and of those 8 units, you  
12 looked at the plans for only five of the units.

13 Maybe you could just give me the numbers  
14 that you have the way you calculated them. It may give  
15 me the information I need and you don't have to sort of  
16 do it.

17 A. Yes. There's just one I have to  
18 check of the -- I came up with six.

19 Q. Six what?

20 A. Of your definition where the plans I  
21 looked at with the TMP after, that would have included  
22 the '86 document, as I understand it anyway.

23 Q. All right. You say you've looked at  
24 six timber management plans which were prepared under  
25 the new process?

1 A. As I understand it.

2 Q. Okay.

3 A. Now, when I say I looked at the  
4 management plans, it's more correct to say I looked at  
5 portions of the management plans, as we were only  
6 allowed to have copies of certain -- were only to keep  
7 copies of so much of the plan.

8 Q. All right. So there is six then that  
9 you believe. And are these other figures then, correct  
10 that that would be six then out of the possible 8  
11 units, and on the other units they were all under the  
12 old plan, they were all prepared under the old process?

13 A. I have six out of seven, I don't have  
14 a total of eight.

15 Q. Okay. Six out of seven had plans  
16 then -- pardon me, seven had plans prepared under the  
17 new process, and you looked at six of them or portions  
18 of six of them?

19 A. Right.

20 Q. And the other ones, the remaining 11  
21 then, to the extent that you looked at the plans or  
22 portions of the plans, you would have been looking at  
23 plans prepared under the older process?

24 A. Yes, and that would have involved  
25 both the process for the Crown units and for the

1 company units versus the FMA units.

2 Q. Okay. That is the information I  
3 wanted. So if you have nothing to add, I can move on.

4 A. I actually looked at more plans in a  
5 sense with the Temagami plan because there were  
6 actually three plans in total. I tried to trace the  
7 history of that particular area.

8 Q. Right. Okay, thank you very much.  
9 During your evidence regarding sustained yield you  
10 indicated that your definition would be harvest in any  
11 year must not be greater than the maximum sustainable  
12 harvest and must sustain all life forms on the area?

13 A. Correct.

14 Q. Two questions. When you say all life  
15 forms on the area, is that to be taken literally?

16 A. Meaning that, I'm not too sure quite  
17 what the implications that you -- what's your  
18 interpretation of all that.

19 Q. All right. What do you mean by all  
20 life forms in that definition?

21 A. What I mean by all forms would be all  
22 the biological life forms that we identify as being  
23 important for maintaining on that management area.

24 Q. And who makes the assessment as to  
25 what's important and what's not?



1           A. That would have to be based upon --  
2 depends how you want to work it out, but it gets into  
3 the economic part. Again, if you took my strict  
4 definition of what the aim should be, well then, it  
5 would be according to how you could maximize the net  
6 present worth of all the operations you're looking at.

7           Q. And that would be in relation to --  
8 well, there are some life forms on the area which are  
9 not the subject matter of economic activity at all.

10 Are you including those in your term, all life forms?

11          A. That is the problem that you run into  
12 when you come to try to evaluate so items, they don't  
13 have a dollar value on them, in which case you either  
14 have to assign them a dollar value based upon some  
15 procedure of transferring a cost to them, or if you  
16 don't feel it's worthwhile to put a cost on them, to  
17 put another value on them, either a plus type of a  
18 situation, a qualitative rather than a quantitative  
19 type of measure.

20          Q. And have you given any thought to the  
21 --sorts of things which would fall into your definition  
22 of all life forms? Are we talking about all species of  
23 plants, all types of bacteria, are we talking about all  
24 types of insect? I just want to know how broad it is,  
25 because...

1                   A. Yeah. I have given that a fair bit  
2 of thought, particularly based on dealing with the  
3 Temagami Indian Band where they would, and their  
4 particular concept would include all life forms,  
5 period. And so that if they were managing an area, how  
6 do you deal with trying to manage all that.

7                   When I gave you my definition I was  
8 trying to look at it a little more practically, from a  
9 Forests for Tomorrow's perspective, where they're  
10 trying to preserve the biological life forms.

11                  So how do you determine that you can  
12 manage the area to manage for all those. The easiest  
13 way is the concept that I presented in my Appendix 2.  
14 At present I think, without knowing all the details of  
15 the life forms, is to try to present -- try to create  
16 the type of habitat for all -- to try to create a wide  
17 variety of habitat, large habitat, small habitat, that  
18 hopefully would provide the living conditions for those  
19 various life forms.

20                  MADAM CHAIR: But exactly, Mr. Benson, if  
21 you did that, then why would you try to put a value on  
22 different species or...

23                  THE WITNESS: You still would have to  
24 have a break between, well, how much area would you  
25 want in the large area, how much area would you want in

1 small area type of management.

2 And really my definition doesn't really  
3 fit in that, my aim wouldn't really fit in at that  
4 level to the extent that I would like it to. You would  
5 need to have more information, if you moved on to the  
6 next management system where you were trying to look at  
7 the different biological land type systems and trying  
8 to get more information and detail on them and trying  
9 to maximize the value of those particular units.

10 There's really a process I see that we  
11 don't have all the detail to make the decisions  
12 necessary, so you can't make maximize the present net  
13 worth, there is no value there, plus the difficulty of,  
14 as you pointed out, assigning a value to some of these  
15 items.

16 If you move on to the ideal where you try  
17 to identify where these different life forms live and  
18 then try to put -- get it quantitative enough, so then  
19 you could put values on them, then you could try to  
20 manage it to maximize the present net worth of the  
21 area.

22 MR. MARTEL: Can you put economic values  
23 on a lot of these, or do we have to look at it from a  
24 point of view that we don't know the effects on nature  
25 when we start to tamper with it and decide what we

1 think is good and bad?

2 I mean, can you place values on black  
3 flies, for example, if you want, from northern Ontario  
4 and how, if you were to remove all the black flies,  
5 what would be the effect on the bird life of  
6 northern -- and the same thing if we're trying to put  
7 an economic value on something that really goes far  
8 beyond economics, and maybe it's: Do we know enough  
9 about the chain reaction of removing some of these  
10 items from a certain area? Do we understand that very  
11 carefully yet?

12 THE WITNESS: No, and certainly I'm not a  
13 biologist, but from what I understand, talking to  
14 biologists or trying to find out from them, we don't  
15 know all those particular answers.

16 When it comes to putting a value on the  
17 different items, there's different ways that you can  
18 use, and I believe that will be spoken to more in the  
19 economics panel, but there are values you can associate  
20 with these other values.

21 For example, if you're going to manage an  
22 area for a particular purpose, let's say, for example,  
23 that we're managing an area to provide for grouse  
24 habitat and as a result of that management we have to  
25 reduce our cut from that area by a certain amount of



1 wood for a certain period of time, well, you could  
2 calculate then, that is the cost associated with  
3 providing that particular other value. In that case  
4 it's not a direct cost, but it's a cost that you could  
5 associate with it.

6 Another way that -- well, there are a  
7 variety of ways that you could determine these other  
8 values. I think ultimately if you set up a management  
9 system where you try to manage for all the values, then  
10 you have worked out what you can do to manage that area  
11 and there is going to be a cost associated with  
12 managing for all values, and that cost would be above  
13 the cost of managing just for timber.

14 MR. MARTEL: But those are values that  
15 man decides are a value; aren't they, they aren't what  
16 nature decides is a value, but they're a value that man  
17 puts on?

18 THE WITNESS: If we're going to manage  
19 it, I think we're stuck with having to put some value  
20 on it.

21 MADAM CHAIR: I guess the question - I  
22 don't want to change Mr. Martel's question - but I  
23 think what he's getting at, and what the Board has  
24 spent a lot of time thinking about, is something just  
25 very fundamental; and, that is, in the long run, is it

1 a good thing to use economic analysis or to put  
2 economic worth on things of nature, on things, that  
3 there should be an assumption, an unchanging assumption  
4 that you have to protect those things no matter what  
5 kind of valuation you can put on them, because  
6 otherwise you run the risk of those values of nature  
7 being out valued by the activities of man, because you  
8 can always make arguments with respect to economic  
9 valuations that something we do is worth more than some  
10 natural aspect.

11 THE WITNESS: Yes.

12 MADAM CHAIR: And that is not terribly  
13 helpful to managers, but that is not the point. The  
14 point is, the philosophy of -- I guess the Board is  
15 grappling with the idea of competing economic values  
16 between timber and all those non-timber resources, and  
17 it seems to us on many occasions they don't balance out  
18 very evenly.

19 And if you don't have an assumption that  
20 you will protect everything of importance to nature, no  
21 matter whether you can put a value on it or not, you  
22 end up doing lots of analysis, but what do you do about  
23 protecting something that needs protection?

24 THE WITNESS: Yes. Well, yes, there's  
25 that level too, and if you have decided that you're

1 going to protect certain life forms, well then, that is  
2 a constraint and you have to provide certain habitat to  
3 that, and within that constraint you could try to  
4 maximize your present net value. And, again, I think  
5 the economists will...

6 MR. MARTEL: But isn't that where you run  
7 into a problem, and maybe we're thinking out loud, but  
8 you run into: It's a constraint. It's a value that we  
9 want to establish though; isn't it?

10 THE WITNESS: I think...

11 MR. MARTEL: And we always revert back  
12 to: Well, it's a value, but the value is put on it by  
13 man, it's not in the process out there, it's in the  
14 ecological system out there, it's a value we ascribe to  
15 it, and we can always come up with: Economically it's  
16 worth more to us to do it, you know, there's jobs and  
17 there's roads and there's all these other things that  
18 we put a value on.

19 I guess I'm trying to figure out how we  
20 really interfere with nature constantly and think we're  
21 better at it than somebody else who has been around for  
22 a lot longer than most of us.

23 THE WITNESS: Why I graduated towards the  
24 economic part was the fact that it would put a uniform  
25 type of value on it, so it makes it somewhat easier to

1 compare the items. You still run into the problem:

2 Well, how do you get that particular value.

3 In the American management plans they  
4 have value -- dollars assigned to different values, but  
5 those are legislated type of values, where it's  
6 determined that recreation can be worth so much for the  
7 area.

8 They don't have economic values on all  
9 their particular concerns. Some can be specialized  
10 items that they're trying to manage and they have to  
11 manage for.

12 What has happened in their case, though,  
13 is that in many of their management units it's turned  
14 out that the economic analysis, that it's more valuable  
15 to manage for the other resources than what it is to  
16 manage for timber and, as a result, their timber  
17 harvesting really is directed towards improving these  
18 other values.

19 Now, I wish I could say: Here is the  
20 answer, and I can't say that, I can just give you some  
21 ideas, and if there was any one clear way of solving  
22 the dilemma out there, that person hasn't spoken up  
23 yet.

24 MS. SWENARCHUK: Could I just add, just  
25 briefly, that the economists will be describing what



1 has been thought about in terms of assigning values and  
2 disassigning values to all non-market items.

3 MR. FREIDIN: And perhaps -- I look  
4 forward to that.

5 Q. I take it from your evidence, Mr.  
6 Benson, that you agree that you should give weight to  
7 matters other than economic factors or calculations,  
8 regardless of how those calculations are made, when  
9 you're trying to make those difficult decisions about,  
10 you know: Do you care about this activity or don't  
11 you, you try to figure out what the effect is on some  
12 other factors, some other part of the environment?

13 A. If you're trying to manage the whole  
14 forest, you have to consider the whole forest in your  
15 management and try to establish: How is your  
16 management going to affect the other resources, or how  
17 is your management of the other resources going to  
18 affect related resources or even unrelated resources.

19 Q. And do you agree that when you do  
20 that, that you should give weight to matters other than  
21 economic factors or calculations that you make which  
22 are based on economic analysis when you do that?

23 A. I think I've said before I would like  
24 to see it all based on an economic analysis, and from a  
25 point of view that you can put a quantitative value

1 down for what it is you're trying to manage, but  
2 certainly at the present time it would be very  
3 difficult to do that and you would have to do as you  
4 say.

5 Q. It would be very difficult to do that  
6 and you would have to say what?

7 A. That you would have to do as you  
8 say -- as you said.

9 Q. And that is...?

10 A. Which is, you would have to consider  
11 the other resources in terms other than purely  
12 economic.

13 Q. Okay. I'm going to have a discussion  
14 about economic value, we will deal with that later.  
15 Okay. And your definition then of sustained yield also  
16 says you must sustain all the life forms on the area.

17 Now, the second part, when you refer to  
18 sustaining all life forms on the area, what's the area  
19 you're referring to? Are you talking about a stand,  
20 are you talking about a management unit, are you  
21 talking about the area of the undertaking, or was there  
22 any specific area that you had in mind?

23 A. It would be the area you're concerned  
24 with managing for sustained yield, which I would think  
25 would be the management unit.

1                   There is some problem with the management  
2 unit part because of the -- and I think that is another  
3 part that needs to be redefined, to clarify what unit  
4 of land is sustained yield being applied to.

5                   Q. Subject to that, it's the management  
6 unit level you're talking about?

7                   A. Yes.

8                   Q. Thank you. In answer to a question  
9 from the Board you stated that you were confident that  
10 the natural forest would produce at a level of maximum  
11 sustained yield over the long term.

12                   And have you made any determination as to  
13 how high a demand manned for wood fiber can be  
14 sustained at that level?

15                   A. How high a demand...?

16                   Q. How high a demand can be sustained at  
17 that level, the levels you had in mind when you said  
18 the forest could produce at the level of maximum  
19 sustained yield over the long term?

20                   A. I believe that question was asked in  
21 connection with the production policy target level.

22                   Q. The Board had asked at the scoping  
23 session if you were confident that there was sufficient  
24 future supply, regardless of whether intensive or  
25 extensive management was used, to meet future demands.

1 That was the question, as I recall it. You said, I  
2 feel confident that the natural forest could produce at  
3 the levels of maximum sustained yield over the long  
4 term.

5 Now, their question was asked using the  
6 phrase, to meet future demand, and I'm not too sure  
7 when you said it could in fact you're confident that  
8 you could produce at the levels of maximum sustained  
9 yield over the long term. Did you have some demand  
10 figure in mind?

11 A. If I recollect right, I would have  
12 been thinking of the production policy target level.

13 Q. That is 25.8 million cubic metres per  
14 year. I think you have that figure on page No. 65 of  
15 your witness statement. Right in the middle of the  
16 page 65:

17 "This final figure is sufficient to meet  
18 the provincial timber production target  
19 of 25.8-million cubic metres."

20 A. Correct.

21 Q. And you also refer on that page to a  
22 higher target of 33.9-million cubic metres could likely  
23 be met, considering the variety of estimates for  
24 productive forest land. And is that your opinion on  
25 the assumption that you use natural regeneration only?



1           A. The natural regeneration that I was  
2 considering and proposing would be the harvesting with  
3 the modified cutting systems to attain natural  
4 regeneration.

5           Q. Is that figure, the 33.9-million  
6 cubic metres, a figure which you believe could be  
7 sustained using methods other than intensive  
8 management?

9           A. That one would be a more difficult  
10 one to reach, that particular level, and I couldn't say  
11 for certainty with that one, no.

12          Q. Why would that one be more  
13 difficult?? You're saying that would be more difficult  
14 to reach without intensive?

15          A. Well, because of the figure that I  
16 worked out for what the long-term sustained yield would  
17 be for the province, which is that 31-million cubic  
18 metres, which is less than 33.9, and what I'm assuming  
19 is there's a certain amount of error associated in  
20 these figures.

21          Q. What are they?

22          A. So that I -- because those two are so  
23 close, I think you would have to really have more  
24 detail to really get an accurate assessment of whether  
25 you could meet it or not.

1 Q. All right. But you said to me,  
2 regardless of what the magnitude of the numbers are,  
3 one is higher than the other, and you just finished  
4 telling me that you think it would be more difficult to  
5 reach that higher number -- pardon me, you said -- I  
6 took it from what you said that you might be able to  
7 reach the higher number because you used intensive,  
8 that without intensive it would be difficult, or you  
9 wouldn't be sure whether you could get that high.

10 Is that the message that you were giving,  
11 do I interpret your evidence correctly?

12 A. You would need better information on  
13 the yield and whether intensive management would allow  
14 you to achieve that level, if you're using intensive,  
15 like simply, if you're using intensive management  
16 theoretically you would be increasing that 1.7 cubic  
17 metres per hectare.

18 Q. I take it from your answer then you  
19 agree that through intensive management you can produce  
20 greater volume off the same area?

21 A. You should be able to, if the  
22 intensive management works.

23 MR. MARTEL: It would be very expensive  
24 then though to go from the -- if we could get to  
25 25.8-million without intensive management - and the

1 costs I think last year were about \$260-million - to  
2 get that additional round term, let's say, six million,  
3 seven, maybe eight million more cubic feet by intensive  
4 management, it becomes very costly then to increase  
5 from 29 -- roughly 26-million to roughly 34-million?

6 THE WITNESS: It would be more expensive,  
7 and I think this is certainly a place where economic  
8 analysis, I think, can play a part with some fairly  
9 concrete numbers, except you still have the problem,  
10 you're dealing with a long rotation and a number of  
11 other varying factors, but I think that could be  
12 analysed more in depth.

13 MR. FREIDIN: Q. Thank you, Mr. Benson.  
14 My last question before we get off of this discussion  
15 about sustained yield and area versus volume  
16 regulation, deals with an issue raised by Ms. Seaborn  
17 during cross-examination.

18 In cross-examination I believe she was  
19 suggesting to you or characterizing the Industry's  
20 evidence as being that they did not agree with the use  
21 of OWOSFOP. I would ask you to turn to Volume 189. I  
22 believe the Board should have that.

23 MADAM CHAIR: We have got them all here,  
24 Mr. Freidin.

25 MR. FREIDIN: This is one that I asked

1       you to bring.

2                   MADAM CHAIR:   Which page?

3                   MR. FREIDIN:   If you turn to page 33280.

4                   MADAM CHAIR:   Thank you.

5                   MR. FREIDIN:   Q.   I want to review with  
6       you, Mr. Benson, portions of my cross-examination of  
7       Mr. Saltarelli who is the representative on Panel 3 of  
8       the Industry's case in relation to the issue of wood  
9       supply, and ask you whether you agree or disagree with  
10      certain of the evidence that he gave.

11                   He said -- I'm starting here on line 18:

12                   "Q.   Should your evidence be taken as  
13                   indicating that OWOSFOP should be  
14                   scrapped?

15                   A.   No, sir, not at all.

16                   Q.   And why not?

17                   A.   The OWOSFOP algorithm, Madam Chair,  
18                   in essence is formally based upon a  
19                   fairly well-known data set that can be  
20                   quantified and rationalized and verified.  
21                   The algorithm is - I guess Bakerville had  
22                   it right on - it's a relatively easy  
23                   model to use."

24                   Let me just drop down, for the purpose of  
25      brevity, to line 10.



1 "If you scrap OWOSFOP you have nothing to  
2 replace it that is readily accessible to  
3 everybody."

4 Going down to line 16, I indicated:

5 "as I understand it, it is your evidence  
6 that OWOSFOP is a good model to be  
7 used across the board at the present  
8 time?

9 A. If it's the Ministry intention, and  
10 it would be a good one, I suppose, to  
11 provide a comparison across the board,  
12 then OWOSFOP would be the model that  
13 would be best to fill that requirement in  
14 my opinion."

15 I asked on the next page:

16 "Is having a basis of comparison, in your  
17 view, a desirable thing?"

18 And he said:

19 "Yes, I think so."

20 Now, I think the words will speak for  
21 themselves as to what the position of the Industry was  
22 or wasn't.

23 Do you agree with Mr. Saltarelli that it  
24 would be a desirable thing to have a basis of  
25 comparison across the area of the undertaking from

1 management unit to management unit when you're doing  
2 wood supply modeling?

3 A. I'm not exactly sure how you mean  
4 that comparison. I would think you would be trying to  
5 look at a wood supply model on the basis of what you  
6 mentioned before, where you're looking at the regional  
7 supply situation and you might want to have the numbers  
8 come in in the same fashion.

9 Q. Right. Let's put it this way: If  
10 you're sitting at the provincial level and you want to  
11 know what your wood supply is provincially and you want  
12 to be able to aggregate numbers, compare data from  
13 different management units, would you agree with me  
14 that it would be important to have numbers coming out  
15 of all those management units which are produced using  
16 the same model? Mr. Saltarelli felt that it was  
17 important.

18 A. I don't see that importance that  
19 particular way, because any particular model that you  
20 use should be giving you figures as to the area and  
21 volume that you project to be harvested from that  
22 management unit for the five-year term and projected  
23 into the future.

24 Q. Mr. Benson, theoretically if you have  
25 a hundred management units and a hundred management

1 units each calculated their area or volume using three  
2 different methods, you could end up -- the numbers  
3 would be quite different. Well, you're saying that  
4 that would be okay, that is what you're saying, as I  
5 take it?

6 A. You would take it that I'm saying...

7 Q. You're saying that you could have a  
8 hundred management units and each one could go on their  
9 own way and calculate their volumes and their areas  
10 according to -- using different models, and that would  
11 be all right?

12 A. No, I think what I'm saying is that  
13 if you're going to manage the management units, I would  
14 like to know that they're being managed on a  
15 sustainable basis.

16 And, as I said this morning, the  
17 particular models that you can use to achieve that end,  
18 and you can use a variety of models when you're trying  
19 to aggregate data, as long as the models produce the  
20 data for area and volume that are going to be harvested  
21 from the management units, and whatever detail you want  
22 to use, that information should be capable of being  
23 aggregated quite readily, I would think.

24 Q. I'm sure no expert on computers, but  
25 it's my understanding that if you use different models,

1 the models have different assumptions built into them.

2 A. Well, perhaps I don't understand your  
3 question. I'm saying that a number is a number. If I  
4 calculated what the allowable cut was for a management  
5 unit by one particular model and I worked it out on a  
6 sustained -- to sustain the yield from that management  
7 unit and it worked out to be the number 100, if I  
8 worked it out using the OWOSFOP model and it turned out  
9 to be 105, if you're aggregating, it's just merely a  
10 matter of transferring the number.

11 I think the important thing would be the  
12 concept of: What are you trying to manage the unit  
13 for.

14 Q. Thank you, Mr. Benson.

15 MR. MARTEL: Would it be easier, Mr.  
16 Benson, though if everybody was using the same  
17 equipment for somebody, let's say, at the main office,  
18 if he knew that everyone was using the same modeling,  
19 the same equipment, to do an analysis for comparative  
20 purposes?

21 THE WITNESS: It could make it easier,  
22 yes, and I wasn't arguing against -- the point I wasn't  
23 trying to make, that you should use different systems,  
24 no, but you could use the same system across the  
25 province, it doesn't necessarily have to be OWOSFOP.



1 I am more interested in the overall  
2 objective being attained, the tool that you're using to  
3 do that is merely a tool.

4 MR. FREIDIN: Q. Okay. Let's change  
5 topics, let's talk a little bit about clearcuts and  
6 let's talk about natural regeneration and artificial  
7 regeneration.

8 Page 127 of your witness statement, the  
9 last paragraph says:

10 "Other parts of the world have recognized  
11 the benefits of natural regeneration."

12 And the quote that you rely on is in  
13 relation to the situation in Yugoslavia; am I correct?

14 A. That's correct.

15 Q. And the source document, 259, I  
16 believe is found on the last two pages of source book  
17 No. II for Panel No. 5 in an exhibit number which I'm  
18 not aware of.

19 MS. SWENARCHUK: 1605A and B.

20 MR. FREIDIN: 1605B.

21 THE WITNESS: I think there were more  
22 pages provided, or at least I copied some and sent them  
23 down.

24 MR. FREIDIN: Q. Well, my copy only has  
25 two pages, and I think for my purposes my two pages are

1 all right. The pages I want to refer you to are pages  
2 179 and 180.

3 A. Okay.

4 Q. Do you have those two there?

5 A. I do.

6 MADAM CHAIR: Under which author?

7 MR. FREIDIN: Under what? Take a look at  
8 the footnote.

9 MS. SWENARCHUK: Obviously in ours and in  
10 the original source book that you got it was simply  
11 filed as Yugoslavia, which is why it's the last entry  
12 in ours.

13 MADAM CHAIR: I've got it. Thank you.

14 MR. FREIDIN: Q. All right. Again, this  
15 is in relation to your comment that they have gone  
16 natural or recognized the benefits of natural  
17 regeneration in other parts of the world.

18 Can you agree, sir, that the forest that  
19 they're talking about in Yugoslavia is not the boreal  
20 forest region?

21 A. That's true.

22 Q. Can we agree that the species which  
23 in fact they manage for in Yugoslavia do not appear in  
24 the boreal forest, the ones they're talking about?

25 A. None of those trees would appear as

1 native species in the boreal forest, no.

2 Q. Right. And can we agree that the  
3 species that they have, if they're similar at all to  
4 Ontario, they're more similar to our hardwood forest?

5 A. It varies considerably in Yugoslavia.  
6 They certainly do have a fair bit of hardwood, but they  
7 also have coniferous areas. There is quite a range of  
8 vegetation that they have there.

9 Q. Would you agree, sir, that the  
10 comment about natural regeneration here, they're  
11 referring to natural regeneration within the  
12 shelterwood system, they're not speaking about natural  
13 regeneration within a clearcut system?

14 A. That's correct.

15 Q. And the reference for that is on page  
16 180 on the right-hand column right at the top where  
17 they say:

18 "Regeneration is carried out by three  
19 felling sequences."

20 And really what they're describing there,  
21 would you agree, is a uniform shelterwood system?

22 A. Yes, that would fit into a uniform  
23 shelterwood wood system.

24 Q. Now, there was considerable  
25 discussion about what happened in European

1 jurisdictions. There was questions back and forth  
2 between the Board and you about Sweden and Finland and  
3 that sort of thing.

4 I'm going to produce for you, Mr. Benson,  
5 a one-page document which is entitled: Forest  
6 Management Statistics for Three Northern Temperate  
7 Forest Jurisdictions.

8 To the extent that you cannot confirm the  
9 figures in here, I will undertake to prove those  
10 figures in reply, Madam Chair. I thought these numbers  
11 might be of some assistance, and I would like that  
12 document to be marked as the next exhibit.

13 MADAM CHAIR: That will be Exhibit No.  
14 1656. This is a one-page exhibit, Mr. Freidin?

15 MR. FREIDIN: Yes, Madam Chair, and that  
16 will be what number again?

17 MADAM CHAIR: 1656.

18 ---EXHIBIT NO. 1656: One-page document entitled:  
19 Forest Management Statistics for  
20 Three Northern Temperate Forest  
Jurisdictions.

21 MR. FREIDIN: Q. Starting at the bottom,  
22 Mr. Benson, you'll see that what this exhibit does is,  
23 by three jurisdictions, it in fact enters or records  
24 the maximum annual increments, the clearcut harvest  
25 area -- pardon me, the mean annual increment, the



1 clearcut area and the trees planted in millions, the  
2 numbers coming from the sources which are indicated at  
3 the bottom of the exhibit.

4 So let's start with Ontario. The  
5 19.7-cubic metres per hectare per year is the mean  
6 annual increment that you calculated; is that correct?

7 A. Yes, and I believe I derived that  
8 from Bickerstaff, Wallace and Evert.

9 Q. Okay. And do you have any quarrel  
10 with the statistics which have been recorded from the  
11 MNR statistics 88-89 which indicate the clearcut  
12 harvest area of 200,000 and the trees planted of  
13 171-billion?

14 A. I can't recall these numbers.

15 Q. You have no reason to doubt the  
16 correctness of them?

17 A. No, I don't.

18 Q. Okay. And for Finland and Sweden,  
19 again for the numbers there, are you able -- based on  
20 your knowledge, are you able to indicate whether those  
21 are numbers which are the relative magnitude of the  
22 numbers that you think would be accurate?

23 A. For the MAI yes, the clearcut harvest  
24 area for Sweden, I'm not sure of that one, I didn't  
25 think it would be quite as high. That's just my

1 feeling, but...

2 Q. All right.

3 A. And the trees planted, the Swedish  
4 one, again I'm not -- I don't know how much -- what  
5 their planting rate has been.

6 Q. Would you agree with me that they  
7 plant considerably more trees in relation to the number  
8 of hectares that they clearcut in Finland and Sweden  
9 than we do here in Ontario?

10 A. Yes, they do.

11 Q. Mr. Martel asked you as to why they  
12 had higher yields in Sweden, and I'm not sure whether  
13 he said Finland or not, but in those areas, why they  
14 had higher yield per hectare.

15 Was it in fact based on the type of  
16 regeneration with the planting, was his question, and  
17 you said, no, it's mostly soil conditions.

18 Now, the productivity of soils, is that  
19 the subject matter that soil scientists deal with?

20 A. Soil scientists can be used for  
21 determining that and foresters try to use it.

22 Q. And would you agree that Professor  
23 Ken Armson is a recognized soil scientist?

24 A. Yes, he is.

25 Q. And you would respect his opinion on

1 a matter of soil science?

2 A. On the matter of soil science and  
3 other areas too, that would have to be determined.

4 Q. Professor Armson advises me that  
5 there is no significant difference between the  
6 productivity of the forest soils of Sweden and Finland  
7 and their boreal forest and the boreal forest of  
8 Ontario.

9 Would you defer to his opinion on that  
10 matter, assuming I prove that that in fact is his  
11 opinion?

12 A. I would defer to his opinion on that  
13 particular matter.

14 Q. Thank you.

15 A. I would like to say too, it wasn't my  
16 intent to try to imply that it was just the soils there  
17 or that there was not intensive management, I think we  
18 had that discussion too, the fact that they were doing  
19 intensive management, but I think there's other factors  
20 than just soil that determine the productivity, and  
21 their productivity is higher than ours for a  
22 combination of reasons, including their intensive  
23 management.

24 Q. All right. Including their intensive  
25 management. But it's not just soil conditions,

1 Professor Armson is correct?

2 A. I would agree to that, right.

3 Q. Now, if soil conditions are the same  
4 and the reasons for increased volume in Scandinavian  
5 countries, as you referred to, is due to the intensity  
6 of their management, would you not expect similar  
7 increases in Ontario if you used, or similar results in  
8 Ontario if you used intensive management?

9 A. In other words, why wouldn't you  
10 expect results of 3.4 on the average for MAI?

11 Q. No. Let's not say 3.4 or 3.2, let's  
12 just say higher than 1.7 which you calculated for  
13 Ontario which you indicated to Madam Chair was based  
14 solely on naturally regenerated stands.

15 A. It's based on the average forest,  
16 existing forest.

17 Q. All right. So the natural forest?

18 A. The natural forest, right.

19 Q. And the figures which are used for  
20 Finland and Sweden is not based just on the natural  
21 forest, it's based on the forest that they have there  
22 which are planted to a very high degree?

23 A. Particularly in the southern part of  
24 Finland, yes.

25 Q. So given that situation, if the soil



1 conditions were the same and the reason for the  
2 increased volume in Scandinavia is due to intensity of  
3 their management, would you not expect an increase --  
4 let's just start with increase in the MAI in Ontario  
5 through intensive management when you're comparing it  
6 to natural?

7 A. If you apply intensive management  
8 successfully, yes, you could increase the MAI.

9 Q. And if you can expect that, do you  
10 think it's wise to exclude the use of artificial?

11 A. No, and I don't -- wasn't excluding  
12 the use of artificial regeneration. I don't think it's  
13 excluded in the terms and conditions of Forests for  
14 Tomorrow either.

15 Q. It's excluded if you don't meet a  
16 certain criteria which is referred to as net present  
17 value.

18 A. That's correct.

19 Q. All right. And we will get to that.  
20 While I'm on that, that net present value matter, Mr.  
21 Benson, is there a test which must be met in order to  
22 do intensive?

23 What I'm getting at is: Is net present  
24 value the sole criteria which will dictate whether you  
25 should use extensive or intensive, according to Forests

1 for Tomorrow's terms and conditions, or is it one of a  
2 number of factors that you should look at in making  
3 that determination?

4 A. There's really two things, as I see  
5 it, and you're correct. There's really two, as I see  
6 it, and you're correct, the one is 14(viii) and that is  
7 on page 15, and that refers to the net present worth  
8 type of calculation.

9 Q. Let's just slow down here. You're  
10 looking at Forests for Tomorrow's terms and conditions?

11 A. That's right.

12 Q. All right. And which term and  
13 concern are you looking at, sir?

14 A. That is 14(i) -- 14, subsection (i),  
15 subsection (viii) on page 15 of Forests for Tomorrow's  
16 terms and conditions.

17 MS. SWENARCHUK: Exhibit 1602.

18 MR. FREIDIN: Right, okay.

19 Q. And that is where it indicates that:  
20 "Silvicultural prescriptions shall  
21 require the use of extensive  
22 silviculture on all sites and stands  
23 capable of natural regeneration of  
24 primary coniferous species, however,  
25 intensive may be used on sites where.

1 intensive silviculture is economically  
2 feasible and that net present worth of  
3 all direct costs and returns is  
4 positive."

5 And when I read that, the way that is  
6 worded, Mr. Benson, it seems to me to say that this  
7 present net worth approach or valuation, in fact, is  
8 the sole criteria that is to be used in determining  
9 whether in fact you should be allowed to use intensive  
10 as opposed to natural regeneration.

11 A. The other place that you could  
12 interpret an exception is on page 18, under section 19,  
13 subsection (i).

14 Q. Yes.

15 MR. MARTEL: What page?

16 MADAM CHAIR: Could we have that...?

17 THE WITNESS: That is page 18 of Forests  
18 for Tomorrow's terms and conditions, Exhibit 1610, page  
19 18, subsection 19 under silvicultural exceptions.

20 MR. FREIDIN: Q. Yes.

21 A. And subsection (i). I guess I should  
22 start with the beginning sentence:

23 "An exception to the silvicultural  
24 standards set out in condition 14(i) may  
25 be approved if:"

1 Subsection (i):

2 "An area has been significantly affected  
3 by natural calamity (i.e., blowdown,  
4 insect, et cetera) and a salvage cut is  
5 required."

6 Q. And...

7 A. Now, it doesn't say intensive, but  
8 you could interpret from it that you could apply  
9 intensive management in that particular situation.

10 Q. In fact are you suggesting that it  
11 would not be necessary to do a present net worth  
12 calculation in that situation?

13 A. In that situation I don't think so,  
14 it would be, and there is another area too that - I  
15 don't believe it's covered in the terms and conditions  
16 here - but there's another area where I think  
17 artificial regeneration could be used, and that is  
18 where you're trying to regenerate an area either  
19 because of some past calamity such as noted here.

20 Q. Such as...?

21 A. Such as noted in 19 subsection(i).

22 Q. Yes.

23 A. Or I was thinking of the Temagami  
24 area where you have areas that have had the white pine  
25 reduced. If you were trying to get white pine back in



1 some of those areas, I think it would require planting.  
2 So in a way it's reconditioning or trying to revitalize  
3 the area. I don't know if that would fit exactly under  
4 subsection 19(i).

5 Q. But that is the situation?

6 A. But it could possibly.

7 Q. I take it that you would want to have  
8 the leeway to in fact plant in that situation, similar  
9 to the one in Temagami you just described?

10 A. In that case, if it's necessary. If  
11 in the case of the blowdown or the insect, if there are  
12 situations where it may not be necessary to  
13 artificially regenerate it, you might be able to obtain  
14 natural regeneration on that too.

15 MR. MARTEL: Can I ask a question?

16 MR. FREIDIN: Sorry.

17 MR. MARTEL: Can you get -- I think  
18 yesterday you said jack pine, you don't get that much  
19 seed from. Can you regenerate a jack pine area  
20 naturally then?

21 THE WITNESS: The trick there -- not  
22 trick, but the procedure really would involve getting  
23 the cones onto the soil.

24 Jack pine is a serotinous cone, meaning  
25 that it requires heat to open that cone for the seed to

1 get out, and if the cone is on bare mineral soil and  
2 the heat from the soil during the summer time can open  
3 that cone up allowing the seed to get out on the ground  
4 and to germinate and establish a tree.

5 If you don't have the cone on the  
6 cut-over, on the ground, well then, you don't have that  
7 process.

8 MADAM CHAIR: Would you classify that as  
9 a site preparation method for natural regeneration?

10 THE WITNESS: It doesn't have to be a  
11 site preparation method, it could be, but you could  
12 obtain that naturally.

13 In some cases if there was spots that  
14 were bared during the harvesting process and cones  
15 landed on those spots, you could obtain jack pine  
16 regeneration that way.

17 MR. MARTEL: But you would have to get  
18 cones on the rest of the area somehow. I mean, what  
19 would you classify that as, I guess that's what I'm  
20 trying to get at? Is that classified as natural regen,  
21 or do you put that in the category of artificial?

22 THE WITNESS: If you just managed to get  
23 the regeneration after harvesting, I would classify  
24 that as natural.

25 MR. MARTEL: Right.

1                   THE WITNESS: And there is variations on  
2                   that, and the harvesting system can affect it too: Is  
3                   the harvesting system going to leave the cones out on  
4                   the site or is it going to drag them away, or how many  
5                   are going to fall off onto the site to allow that  
6                   natural regeneration to occur.

7                   One simple way in the past that I  
8                   observed for regenerating an area to jack pine that was  
9                   harvested was merely to go along and -- have people go  
10                  along and throw the branches with jack pine cones on  
11                  them onto these bare spots to regenerate it.

12                  In fact, we tried that in one small area  
13                  around the Hornepayne area. You could then try  
14                  different techniques beyond that, if there's not enough  
15                  cones on the area: Well then, okay, how can you get  
16                  seed on those spots of grounds.

17                  You could manually go out and put seed on  
18                  the area, you could aerially seed it, or you can use a  
19                  type of scarifying for creating those spots and putting  
20                  seed on it. And there is different types of equipment  
21                  for doing that scarification that can be used, ranging  
22                  from -- I suppose the most familiar is the Bracke.

23                  MR. MARTEL: But the second you put seed  
24                  on it from the air, where do we -- what category do we  
25                  put that in; is that artificial or natural?

1 I mean, I worried about that last night  
2 and I mentioned it to my colleauge and that is why we  
3 are raising it, we just don't know.

4 THE WITNESS: That would be artificial.  
5 I don't think that that would be in disagreement with  
6 aerial seeding, artificial. Is aerial seeding  
7 artificial...

8 MR. FREIDIN: Q. Artificially seeding,  
9 the way we have been using the term here, would you  
10 object to that being used?

11 A. That is a form of artificial  
12 regeneration, correct, and the way...

13 Q. Would you object to it being used?

14 A. No, and...

15 Q. Would you object to it being used in  
16 the absence of -- if you had a net present value  
17 calculation and it came out negative but you wanted to  
18 use artificial method of aerial seeding, should the  
19 foresters be allowed to do it?

20 A. The problem I have with your logic  
21 there is, if you're saying - and I'm implying that the  
22 other value came out higher - if the seeding was  
23 negative and you couldn't choose it because of the net  
24 present value analysis, well then, you're assuming  
25 there's a natural way or another way that you can get



1 regeneration there for a more positive value.

2 Q. I'm assuming that can't get  
3 regeneration there without artificial. The net present  
4 value comes out to be negative. If you did anything  
5 other than natural, it seems to me it doesn't make very  
6 much sense if you're worried about growing a forest, to  
7 leave the area to natural, if you know the only way you  
8 can really regenerate it properly is through  
9 artificial, regardless of what the net present value  
10 calculation says.

11 To be quite frank with you, it's the  
12 Ministry's position that the net present value approach  
13 should not be the sole factor to determine whether you  
14 use the intensive or natural?

15 A. I guess there's two points then. I  
16 interpreted your argument, first, that if you have two  
17 ways to treat the area and you have a net present value  
18 by a natural way that is more positive than by the  
19 seeding, well then, why not do it the natural way  
20 because it's more economical to do it that way.

21 Q. Right. You're making the assumption  
22 that you will get acceptable regeneration through  
23 natural?

24 A. That's right.

25 Q. Okay.

1                   A. Well, both are making assumptions,  
2                   and that was my point, if you have two systems, both  
3                   have to make assumptions about what you're going to get  
4                   in the future in order to determine what the net  
5                   present value is.

6                   Now, in the scenario then, as you  
7                   explained it, where if you harvest the area and you  
8                   figure you have to seed it or you're not going to get  
9                   anything, then I still think you would want to use the  
10                  net present value from the point of view of determining  
11                  the least cost for regenerating that area.

12                  Now, there's a point there that I hadn't  
13                  considered before, that you've made there: Well, if it  
14                  didn't come back naturally or couldn't come back  
15                  naturally, would the net present value have to be  
16                  positive?

17                  Ideally I would like it to be positive  
18                  because I think it should be run on a profit-making  
19                  basis. At the present time the stumpage rates, the way  
20                  they are right now, it would be very difficult to do  
21                  that. I would still use net present value though on  
22                  the basis of trying to regenerate the area at the least  
23                  cost.

24                  Q. All right. But you would make the  
25                  calculation -- you would like the net present value to

1 be positive, but in the situation I described to you, -  
2 which you said you hadn't thought of before - it's a  
3 situation where the area would not regenerate to an  
4 acceptable level naturally, that you had to use an  
5 artificial method in order to regeneration acceptably,  
6 I'm suggesting to you in that situation that the  
7 forester should be permitted, in fact it is wise, to  
8 allow a forester to use the artificial method  
9 regardless of what the net present value calculation  
10 says.

11 And I say that because either you are  
12 interested in regenerating the forest or you're not.

13 A. Well, the other aspect too is, if  
14 it's not regenerating to jack pine, what is it  
15 regenerating too, what's the other working group that  
16 it's going to come back to.

17 MADAM CHAIR: Excuse me. I would just  
18 interject here.

19 Mr. Benson, we're revisiting an issue  
20 that we had discussed in some detail with Mr. Marek,  
21 and the context of that discussion was that the Board  
22 had received a great deal of evidence from the Ministry  
23 of Natural Resources and the Industry concerning the  
24 not very impressive natural seeding-in of jack pine and  
25 the good success they have had with seeding and

1       planting of jack pine.

2                   At the same time we had received evidence  
3       about spruce, that in fact it seemed to be more  
4       successful with respect to naturally seeding-in, and  
5       the Board's question had been to Mr. Marek: Why in the  
6       silvicultural standards put forward by Forests for  
7       Tomorrow jack pine was being treated the same way as  
8       spruce, in the sense that they were given the same  
9       likelihood of being naturally regenerated; whereas, we  
10      thought there had been a difference with respect to  
11      those species.

12                  So we have asked you several questions  
13      over the last few days about your comment that, yes,  
14      jack pine will regenerate naturally.

15                  THE WITNESS: Okay.

16                  MADAM CHAIR: Do you want the break to  
17      think this over. Would that be a problem for you, Mr.  
18      Freidin, and we can return to this subject?

19                  MR. FREIDIN: Right. And just so we're  
20      all clear, the question I think you left me with is:  
21      It is my suggestion to you that if you're in a  
22      situation where natural regeneration will not provide  
23      you with an acceptable regeneration on the site but  
24      that artificial will, that the forester should be  
25      permitted to use that artificial method, regardless of



1 what the net present value calculation shows.

2 In other words, if the net present value  
3 shows that if it could have come back naturally you  
4 would get a better net present value than artificially.  
5 I'm saying, who cares if what you want to do is make  
6 sure you regenerate that site in an acceptable way, and  
7 that's what I would like you to address when you get  
8 back.

9 THE WITNESS: Just a point of  
10 clarification there. This is purely jack pine and the  
11 regeneration of the site would not -- you're not  
12 considering that it might regenerate to another working  
13 group at all?

14 MR. FREIDIN: Q. No. I'll tell you --  
15 there's another little twist that comes in here,  
16 Forests for Tomorrow's terms and condition 14(i)(i) says  
17 that:

18 "Silvicultural prescriptions shall...",  
19 And I think maybe you've changed that to say endeavor  
20 to or something,

21 "...result..."

22 MS. SWENARCHUK: You have changed it, Mr.  
23 Freidin.

24 MR. FREIDIN: You have.

25 MS. SWENARCHUK: You have changed it.

1 MR. FREIDIN: I have the agreement of  
2 your witness that it's been changed. That's good  
3 enough for me.

4 Q. "...result in the lowest cost to the  
5 public to regenerate stands equal to the  
6 species and density of the stands that  
7 are harvested."

8 So in your situation that you described  
9 to me, Mr. Benson, if you're dealing with the jack pine  
10 stands in my hypothetical, let's say it's a jack pine  
11 stand, and you cannot regenerate it - I don't care what  
12 species it is - you start off with a certain species  
13 and density, if you can't regenerate it naturally to an  
14 acceptable level - and let's use Forests for Tomorrow's  
15 standards, the same species and density - unless you do  
16 it artificially, and I'm saying, surely, if you're  
17 worried about growing a forest, that you should be  
18 allowed to use artificial, and I don't care what the  
19 net present value calculation tells you.

20 MS. SWENARCHUK: Mrs. Koven, could I just  
21 add in response to your comments regarding jack pine  
22 that on page 17 of the terms and conditions, this is a  
23 part of the prescriptions possible for jack pine, it  
24 specifically notes the second paragraph at the top:

25 "Further seeding may be necessary. Tree

1                   planting shall be carried out only if  
2                   previous prescriptions have failed."

3                   So there is a possibility for seeding.

4                   MADAM CHAIR: Thank you, Ms. Swenarchuk.

5                   We will be back in 20 minutes.

6                   ---Recess taken at 2:45 p.m.

7                   ---On resuming at 3:10 p.m.

8                   MADAM CHAIR: Please be seated.

9                   MS. SWENARCHUK: Madam Chair, I would  
10                  like to add just one further clarification about FFT's  
11                  terms and conditions.

12                  MADAM CHAIR: Yes, Ms. Swenarchuk.

13                  MS. SWENARCHUK: And that is condition 14  
14                  (i)(viii) on page 15, and I would just like to bring to  
15                  everyone's attention that the condition is drafted to  
16                  require the use of extensive silviculture on all sites  
17                  and stands capable of natural regeneration of primary  
18                  coniferous species.

19                  So we're not suggesting that technique  
20                  should be used on the sites where it's deemed not  
21                  capable of being successful.

22                  MADAM CHAIR: Thank you, Ms. Swenarchuk.

23                  MR. FREIDIN: And I am more concerned  
24                  about the section on extensive.

25                  Q. Anyway, do you have an answer to the

1 question, Mr. Benson?

2 A. If the forester is looking or  
3 determining for this particular site that artificial  
4 regeneration was the only technique that would work on  
5 this particular area and that technique was aerial  
6 seeding and it would result in a net present worth  
7 value, then I would say, no, I wouldn't do that, I  
8 would try to see if I could find a way that would give  
9 you a positive net worth.

10 Q. And if you couldn't find a way that  
11 would give you a positive net present worth -- all  
12 right.

13 If you couldn't regenerate the site -- if  
14 to regenerate the site resulted -- okay.

15 If the means that had to be used to  
16 regenerate the site generated a negative net present  
17 worth, is it your evidence that artificial regeneration  
18 should not be allowed?

19 A. The particular example you gave me  
20 was for this -- in looking at the area you're setting  
21 the harvest and you know beforehand that your  
22 harvesting method, et cetera, is going to require you  
23 to seed it, natural regeneration will not work, and  
24 your artificial method is going to cost you -- well,  
25 there will be a negative present net worth, well then,



1 no, I wouldn't harvest it or, in effect, regenerate it  
2 artificially.

3 Q. All right. So in that situation  
4 where, before you harvested, you felt that you couldn't  
5 regenerate it naturally, you could regenerate  
6 artificially but to regenerate it artificially would  
7 result in a negative net present worth, you would not  
8 harvest?

9 A. That's right.

10 Q. And I take it then that you're saying  
11 that the decision as to whether you go intensive or  
12 extensive, or intensive or natural, that the sole  
13 criteria or the controlling criteria which answers that  
14 question is whether or not you get a positive or a  
15 negative net present worth; isn't that correct?

16 A. With the other exceptions that were  
17 noted.

18 Q. With the exceptions you've noted, net  
19 present worth then is the sole criteria which is to be  
20 used to answer that question; is that not right, Mr.  
21 Benson, that is your evidence?

22 A. And the other criteria, we're trying  
23 to regenerate the area back to the species that were  
24 there before, the fact that you could use artificial  
25 regeneration in the case where it was a natural

1 disturbance...

2 Q. Let's not worry about the exceptions.  
3 I accept what you're saying. If it doesn't fall within  
4 one of the exceptions, it is your evidence that you  
5 should not be allowed to use artificial regeneration if  
6 to do so will result in a negative net present worth?

7 A. To deliberately harvest the area  
8 knowing that you have to regenerate it at a cost  
9 instead of trying to figure out: Is there a lower cost  
10 way to regenerate it naturally.

11 Q. No.

12 A. Like the example you gave is where  
13 you had no alternative.

14 Q. I'm saying where -- yes, I'm saying  
15 the situation we're talking about is where - accept for  
16 the purposes of my question that you cannot regenerate  
17 the site to an acceptable level unless you do it  
18 artificially, you just can't do it naturally in that  
19 situation - I understand your position to be that you  
20 should not be allowed to use artificial if to use  
21 artificial results in a negative net present worth?

22 A. If you knew that that was a condition  
23 that was going to result and you deliberately went and  
24 did it that way, no, I would be against that. I would  
25 try to work for the net present worth as far as

1 artificial regeneration worth goes.

2 Q. What do you mean you would work  
3 towards getting the net present worth? If you can't  
4 do it artificially because -- you can't do it  
5 naturally, you've got to go artificially, either net  
6 present worth says you can or it's just says you can't,  
7 or it's just a factor which you take into account.

8 I mean, I want to understand what your  
9 position is on this.

10 A. I'm saying, for this particular area,  
11 if you know that you can't regenerate it with your  
12 knowledge now, you can't regenerate it naturally to the  
13 condition that you want, but yet you feel you could  
14 regenerate it artificially but at a negative value,  
15 present net worth, well then, I wouldn't do that.

16 Q. You wouldn't artificially treat it,  
17 you would just leave it, you wouldn't harvest it?

18 A. Correct.

19 Q. Okay, thank you. Would you agree  
20 with me, Mr. Benson, that once a decision is made that  
21 you're going to regenerate an area artificially, that  
22 you would want to, you would try to in fact do that as  
23 cheaply as possible?

24 If you want to achieve -- if you had to  
25 use artificial regeneration, wouldn't you agree you

1 would want to try to--

2 A. Correct.

3 Q. --to achieve the objective as cheaply  
4 as possible?

5 A. Yes, yes.

6 Q. Okay. In terms of the exception that  
7 you referred to, Mr. Benson, you said that it would not  
8 be necessary to do a net present value calculation when  
9 you were dealing with the exception which is in term  
10 and condition 19(i) where an area has been  
11 significantly affected by natural calamity and a  
12 salvage cut is required.

13 Can you explain to me, sir, the reason  
14 that it would not be necessary to do a net present  
15 value in that situation?

16 A. Net present value or net present  
17 worth from the point of view of regenerating the area,  
18 I presume that if you had to artificially regenerate  
19 it, it would be at a cost.

20 If you're going to do a net present worth  
21 you would do it from the point of view, which is the  
22 cheapest way, or which is the best way we can do that.

23 Q. If it's going to be a negative net  
24 present worth, in that situation you've got a stand  
25 which has been affected by insects, you're saying you



1 can go in there and harvest that and regenerate it  
2 artificially even if the net present worth is negative;  
3 that's what you've told me.

4 A. That's correct.

5 Q. Why can you do that in the situation  
6 of a natural calamity for the purposes of regenerating  
7 the area and not do it in the case where you're going  
8 to go in and the stand is in a healthy condition and  
9 you want to harvest it?

10 A. From the point of view, you're trying  
11 to correct a situation for a natural calamity. You  
12 don't really have the opportunity or may not have the  
13 opportunity to regenerate that area naturally because  
14 of the calamity that has occurred, so it may be  
15 necessary to artificially regenerate that area,  
16 unless -- and, again, this applies to the other option  
17 too that I was saying, if it's going to regenerate to  
18 another working group and you know that, well, that is  
19 another alternative in both those situations.

20 Q. Well, why would you be worried about  
21 regenerating the area after a natural calamity if it's  
22 going to cost you money, if the net present worth is  
23 negative, why even go in there and do anything?

24 A. It may not be necessary to do it, but  
25 it's an option. If it is necessary to regenerate it,

1       then you could regenerate it artificially.

2                       Q.   And why might it be necessary to  
3       regenerate it.

4                       A.   In a natural calamity case there, if  
5       you weren't going to get the right kind of natural  
6       regeneration or the right amount of natural  
7       regeneration.

8                       Q.   What's the difference between going  
9       into an area which has been subject to natural  
10      disturbance and harvesting the wood for whatever value  
11      it has and going into a healthy stand and harvesting  
12      the wood for whatever value it has?

13                      When you've got both situations, and then  
14      you say:   Okay, now I want to regenerate the area.   In  
15      the one case where you went in to salvage you say:  
16      Well, I don't care what the net present worth is, we  
17      should do artificial, we don't have to worry about the  
18      net present worth; but in the other case where you've  
19      gone in there for exactly the same purpose to in fact  
20      obtain a supply of timber, you say you can't.

21                      It seems to me -- I don't understand the  
22      logic.

23                      A.   I would do the net present worth  
24      calculation for the calamity area too to try to have  
25      that area regenerated as cheaply and as effectively as

1 possible.

2 Q. Mr. Benson, I understand that once  
3 you make the decision to do it artificially you want to  
4 do it as cheaply as possible, and I understand that a  
5 net present worth calculation may assist you.

6 I'm dealing with more one step before  
7 that; that is, whether you're going to be allowed to do  
8 an artificial regeneration method at all, and I'm  
9 saying, I hear your evidence.

10 In the two situations I described to you,  
11 one is the salvage cut and one is the healthy stand,  
12 the purpose of going in there to do either one is to  
13 get a supply of timber. If we're talking about timber  
14 production now, the same purpose for going in there,  
15 what is the logic, what is the rationale for, in the  
16 case of salvage, saying you can go ahead and  
17 artificially regenerate but figure out how to do it as  
18 cheaply as possible through net present worth, but in  
19 the other case saying: You can't even consider  
20 artificial at all.

21 That is what you're telling me. I don't  
22 understand why you're making the distinction.

23 A. The other one is not saying you can't  
24 consider artificial, it's saying you can't consider  
25 artificial if it results in a negative net present

1       worth.

2                       And the difference between the two is;  
3       one, is a calamity where nature has made the decision  
4       in effect that the area has to be harvested, while in  
5       the other case the man is making the decision that the  
6       area was harvested and you would have to regenerate it  
7       at a cost. That is the main difference.

8                       Q. Okay, I'll just leave it at that.

9                       If you encounter in your timber  
10       management activities a large area which is starting to  
11       break up, it's going to turn into a junk forest as Mr.  
12       Marek described it if you don't harvest it, Mr. Marek  
13       said that in that case to avoid the creation of a junk  
14       forest that you should be allowed to exceed the size  
15       limitation set out in Forests for Tomorrow's terms and  
16       conditions.

17                      From a silvicultural point of view, from  
18       a timber management point of view, do you agree with  
19       Mr. Marek?

20                      A. Was there any species -- were there  
21       any species associated with this forest?

22                      MS. SWENARCHUK: Could we have some  
23       precise language here? Could we have the quote from  
24       Mr. Marek, please?

25                      MR. FREIDIN: I don't have the quote from



1 Mr. Marek. I will find it, but let's assume -- let's  
2 proceed on the assumption that I have properly  
3 characterized Mr. Marek's evidence.

4 Q. Assuming for the purpose of my  
5 question, Mr. Benson, that Mr. Marek said exactly what  
6 I said, if you encounter an area that's greater than a  
7 hundred hectares of jack pine, for example, and it's  
8 breaking up and it's going to turn into a junk forest  
9 if you don't harvest it, he said you could in fact  
10 harvest that area and exceed the size limitation for  
11 jack pine which is a hundred hectares.

12 Now, do you agree conceptually with what  
13 Mr. Marek is saying regardless of the species,  
14 regardless of the species?

15 A. And the concept being that you could  
16 violate the silvicultural--

17 Q. The size limitations.

18 A. --as laid down in Section 14(i)?

19 Q. Right, in the circumstances I  
20 described.

21 A. Yeah. I think I tried to say that  
22 before too, where the best silvicultural guidelines for  
23 a particular management unit should be based upon  
24 knowledge from that management unit and the conditions  
25 of that management unit.

1 Q. In the circumstances I described, do  
2 you agree, as a professional forester, assuming for the  
3 moment that your consideration is timber production and  
4 silviculture, that you should be allowed to in fact  
5 harvest that area, prevent the junk forest from being  
6 created, notwithstanding it may be greater an area than  
7 the area set out in the Forests for Tomorrow's terms  
8 and conditions?

9 A. In that particular case, for that  
10 forest, yes, I would have to agree with that.

11 Q. Would you agree with me, sir, that  
12 where you do that for that reason it might very well be  
13 the case that because of the area that you have  
14 harvested there is no seed source for natural  
15 regeneration, and if you were going to regenerate the  
16 area you would have to use an artificial means.

17 A. And so the question is...?

18 Q. No, just answer that question please.

19 A. Would I harvest it then?

20 Q. No, I didn't ask you whether you  
21 would harvest it.

22 A. I'm sorry, I missed it then.

23 Q. I said, if you go in there and you  
24 clearcut that large area to prevent the junk forest,  
25 would you agree with me that it is possible that as a

1 result of harvesting over that area that you might not  
2 have a sufficient seed source to use natural and you  
3 would, therefore, have to use artificial means to  
4 regenerate the area?

5 A. It's possible you may run into that  
6 problem, yes.

7 Q. And would you agree with me when you  
8 ran into that problem, sir, that in fact you should be  
9 allowed to use artificial regeneration to regenerate  
10 the area?

11 A. Well --

12 Q. And net present worth should not be  
13 the sole criteria to tell you whether you can or you  
14 can't?

15 A. Well, my personal preference would be  
16 that net present worth should enter into the  
17 calculation and that it should be positive.

18 Q. That it should be positive. Are you  
19 saying, in relation to the question as to whether you  
20 should use artificial or to use net present worth, for  
21 the purpose of determining which type of artificial you  
22 should use which of the two are you talking about?

23 A. For both reasons, and I would like --  
24 and I don't think we will argue about the one for  
25 finding out the best alternative.

1 Q. Okay. Let's deal with the first one,  
2 which is really what I'm concerned about.

3 A. Which is the one that will cause us  
4 the most trouble. And I would go back -- take it back  
5 before you harvest that area then.

6 If you know what the scenario is going to  
7 be all the way through and what are the options for  
8 harvesting the timber: Do you really need to harvest  
9 that area you're talking about, is it necessary to  
10 harvest, is there an alternative way you could meet  
11 that wood supply without harvesting that spot and  
12 incurring that extra cost.

13 And I suppose, okay, to get back to the  
14 problem, if that doesn't work out, there is no  
15 alternative, so you're faced with the situation you  
16 have to harvest it, and we're back to answering your  
17 question of: Would I want to regenerate the area  
18 artificially.

19 And given that final case where you've  
20 looked at all the alternatives and you don't have any  
21 alternative but to regenerate it artificially, then I  
22 would regenerate it artificially, even if it was at a  
23 cost and you had no other alternatives.

24 Q. Even if the net present worth was  
25 negative in that situation?



1 A. In that situation, right.

2 Q. Now, let me give you a hypothetical  
3 situation, Mr. Benson. You've got this large area,  
4 it's breaking up and it's going to turn into a junk  
5 forest as described by Mr. Marek. Are you familiar  
6 with all of Mr. Marek's evidence by the way about junk  
7 forests?

8 A. No, I'm not.

9 Q. All right. Basically what he said is  
10 that the junk forest, after it breaks up, you get there  
11 and you just throw up your hands and say: How am I  
12 going to regenerate this site silviculturally the way I  
13 want, all right, it breaks up, it's a real problem.

14 Now, hypothetical. You've got an area of  
15 jack pine, you want to get jack pine, you've got this  
16 big area breaking up, it's going to turn into a junk  
17 forest the way Mr. Marek described.

18 You've got another area you can go to,  
19 it's a younger stand of jack pine, it's healthy as  
20 heck, okay, if you go -- in that situation, if you go  
21 to the young stand and you harvest it and have your  
22 wood supply. You're going to end up in the future with  
23 a junk forest where that big stand is.

24 If in that situation you harvest that big  
25 stand before it turns into a junk stand. You're going

1 to get the value out of that and in the future you're  
2 going to have that young stand to harvest. Make sense  
3 so far?

4 A. Not entirely. You lost me partway  
5 there where you talked about getting into the big...

6 Q. All right. Two stands, you've got  
7 one which is old and is going to break up if you don't  
8 harvest it and it's going to turn into a junk forest if  
9 you don't harvest it, okay?

10 A. Okay.

11 Q. Right. Here in my other hand is  
12 another stand and it is a younger stand of the same  
13 species you're after, okay?

14 A. Okay.

15 Q. Now, let's assume if you follow  
16 your scenario, because you've got an alternate supply,  
17 you go over here and you harvest the healthy stand, the  
18 younger stand, and you use that timber for whatever  
19 purpose you want.

20 This other area which is old, in the  
21 meantime starts -- it breaks up, it turns into a junk  
22 forest according to Mr. Marek's evidence, that large  
23 area has turned into a junk forest and he doesn't like  
24 that, if what you're concerned about is timber  
25 management. Does that make sense so far?

1 A. That makes sense, right.

2 Q. Now, what I'm saying to you, Mr.

3 Benson, in the situation where you've got those two  
4 stands, if this stand which is starting to break up is  
5 still of value and you can avoid it breaking up by  
6 harvesting it now, and this younger stand will stay on  
7 the stump, remain merchantable long enough so that in  
8 the future some time after you have harvested this big  
9 stand you can actually harvest the younger stand that  
10 has grown a little bit older but still merchantable,  
11 but from a timber management point of view it makes  
12 sense to harvest the old stand now, you can have the  
13 use of a greater wood supply, if that is of any  
14 concern, and you have avoided Mr. Marek's junk forest,  
15 that seems to me to be the reasonable management  
16 procedure to follow. Do you not agree?

17 A. I agree if I understood your complete  
18 argument there, that you would want to go in and  
19 harvest that junk forest and presume...

20 Q. The forest which is going to break up  
21 and become a junk forest.

22 A. Correct.

23 Q. Yes.

24 A. And that you would try to -- if you  
25 have to do that in order to meet your particular supply

1 demands in the future, yes, that would seem to be  
2 logical.

3 MR. MARTEL: Can I raise an issue here  
4 before we go any further in this section of the terms  
5 and agreements. You might not want to answer this  
6 question, and if you don't feel comfortable, please say  
7 so.

8 But is your problem one that if you waver  
9 at all from the terms and conditions, that that  
10 becomes -- your concern is, that becomes the norm we  
11 use all the time; in other words, if we accept 130  
12 hectares for a clearcut, well, everything that happens  
13 is 130 hectares plus, or if it's the extra 130 to bring  
14 it to 260, that becomes the norm, and the danger that  
15 you foresee or concern that you might have is that no  
16 matter what figure, where you draw the line, all of a  
17 sudden we don't deal with exceptions any longer but  
18 that in fact becomes the norm.

19 I'm not sure you understand what I'm  
20 driving at, but --

21 MADAM CHAIR: I think what Mr. Martel is  
22 talking about, Mr. Benson, is that throughout the  
23 testimony from Mr. Marek and yourself we have been  
24 trying to understand how these silvicultural standards  
25 being proposed by Forests for Tomorrow will be



1 implemented, and other parties have cross-examined  
2 extensively on what the exceptions would be to modified  
3 small area clearcut and natural regeneration.

4 And I think Mr. Martel's question is: Is  
5 it a concern to Forests for Tomorrow to keep their  
6 standards with as few exceptions as possible because  
7 there is a concern that the standards become  
8 meaningless if you write down every possible exception  
9 that could be made to them?

10 THE WITNESS: I don't think I can answer  
11 that question stated that way. The concept of setting  
12 out these silvicultural guidelines was to try to create  
13 the conditions for obtaining natural regeneration and  
14 to obtain the diversity of sizes of cut areas in the  
15 area.

16 The problem you have are the exceptions  
17 that occur and, well, the very fact that you have to  
18 determine the specific best silvicultural guidelines on  
19 a management unit, I feel, that they have to be dealt  
20 with.

21 MR. MARTEL: Stop there, because maybe I  
22 can put it in the proper context. I understand what  
23 you're trying to achieve. Then somebody says: Ah-hah,  
24 and we can use the example that Mr. Freidin gave, if  
25 the net present value is negative, even though the jack

1 pine -- you've got to go back and maybe throw a little  
2 seed in it, that that opens the whole Pandora's Box  
3 then if you accept that, then from there on in the  
4 exception becomes part of the decision-making factor  
5 always.

6 THE WITNESS: I think there's that danger  
7 in this particular process, yes. That's a problem of  
8 trying to figure out, how do you set up guidelines and  
9 answer all the questions and all the problems, and I  
10 don't think you can do that realistically.

11 MR. MARTEL: So you protect your turf.  
12 There's a tendency on anyone's part then to try to  
13 protect their turf?

14 THE WITNESS: Exactly.

15 MR. MARTEL: Compromise goes out the  
16 window because of the fear?

17 THE WITNESS: It goes out somewhere.

18 MR. MARTEL: Yes.

19 THE WITNESS: I'm not sure...

20 MR. MARTEL: Well, for a walk then, let's  
21 say. I mean, because you can always find exceptions;  
22 can't you, no matter what rule you make, except dying.

23 THE WITNESS: And I think perhaps they  
24 are complicated a bit further by my own views on how  
25 the forest should be managed, where I think it should

1 be managed for a net present worth type of value, and  
2 when you get into the exception cases, again: Well,  
3 there are going to be cases where I would have to  
4 violate my principle for one reason or another, but the  
5 overall philosophy I have is, is that you should try to  
6 grow the forest and manage the forest so that you are  
7 obtaining a positive net present worth.

8 And I'm not too sure what the value is of  
9 going through all the particular exceptions, except to  
10 show that nothing is perfect.

11 MR. FREIDIN: Q. Okay. Just one last  
12 question which arises out of the questions from the  
13 Board on this issue in terms of Madam Chair's comment  
14 about the evidence that has been led about jack pine  
15 and spruce in terms of natural regeneration.

16 We have heard evidence at the hearing  
17 that jack pine -- pardon me, the method of obtaining  
18 natural regeneration of jack pine through the  
19 scattering of cones does not work in all areas of the  
20 area of the undertaking in an acceptable way, and are  
21 you in any position to contradict the evidence to that  
22 effect which was led by practising field foresters.

23 A. No. And, again, I think it agrees  
24 with what I've said before.

25 Q. Okay, all right. If we might --

1       could you refer to page 65 of the witness statement,  
2       please.

3                   MS. SWENARCHUK:   Page?

4                   MR. FREIDIN:   65.

5                   MS. SWENARCHUK:   Page, please?

6                   MR. FREIDIN:   65.

7                   MR. FREIDIN:   If I could have one moment.

8                   I see that I have already asked those  
9       questions, I apologize.

10                  Q.   Let's go to page 66.  In the last  
11       full paragraph on page 66 you state:

12                   "intensive silviculture activities strive  
13                   to increase the production of a species  
14                   from an area.  The increase in volume may  
15                   be obtained by increasing the stocking of  
16                   the desired species at the expense of  
17                   other species that may normally occupy  
18                   the site and/or use genetically superior  
19                   stock."

20                  You use the phrase intensive silviculture  
21       there, Mr. Benson.  Mr. Marek gave a definition of what  
22       he meant or an explanation of what he meant by  
23       intensive silviculture.

24                  Do you know what that explanation was so  
25       that you are able to tell me whether your explanation



1 of what that phrase means is the same?

2 A. I don't know what George's  
3 explanation was, no.

4 Q. What's your definition of intensive  
5 silviculture?

6 A. I would go by the definition as under  
7 section of Forests for Tomorrow's draft terms and  
8 conditions, Section 14, subsection (ii) where it's  
9 defined as:

10 "Intensive silviculture means the  
11 practice of forestry so as to obtain  
12 profitably a high level of volume and  
13 quality of output through artificial  
14 regeneration and tending techniques."

15 Q. Mr. Marek described an intensive  
16 plantation, he described intensive plantations that he  
17 grew in the Limestone Lake area.

18 MS. SWENARCHUK: Can we have transcript  
19 references for this, Mr. Freidin? Mr. Marek was on the  
20 stand for a month.

21 MR. FREIDIN: Are you suggesting that I'm  
22 mischaracterizing his evidence, Ms. Swenarchuk, that I  
23 have to have a transcript, when it's clear that -- are  
24 you saying that I'm mischaracterizing the evidence,  
25 that I need a transcript; is that it?

1 MS. SWENARCHUK: I'm saying that normally  
2 when a witness is being asked to comment on someone  
3 else's or his own previous statement he's presented  
4 with the precise words on which he's being asked to  
5 comment on.

6 MR. FREIDIN: All right. To satisfy that  
7 request, I'll defer that question and I will ask  
8 another question, Mr. Benson.

9 Q. Do you believe that areas should be  
10 identified -- areas of the production forest should be  
11 identified and designated for the single purpose of  
12 high volume timber production?

13 A. Yes, I think that is -- should be  
14 done.

15 Q. And what sort of areas would those  
16 be; how would you identify them, what would be the  
17 criteria that you would use to identify them, and why  
18 would you identify them?

19 A. If you're looking at areas that, (a)  
20 would have the potential for producing a higher yield  
21 per hectare than what you would get off the average  
22 site certainly for an area; you would be looking at an  
23 area that was fairly accessible or not too expensive to  
24 access.

25 Q. To access?

1 A. Access.

2 Q. Right.

3 A. And third, the transportation  
4 distance from the mill that you expected to use that  
5 product should be fairly close or fairly short.

6 Q. Would the silvicultural activities on  
7 those areas be intensive in the sense that you would be  
8 using artificial methods, you would be seeding, you  
9 would be planting; what would you expect?

10 A. I would expect on the more productive  
11 areas, if you were trying to increase the growth as  
12 much as possible and the amount of wood, that you would  
13 be using the more intensive procedures on those sites.

14 Q. Would you describe for me the kinds  
15 of procedures which you believe would be intensive and  
16 which would increase the production on those sites?

17 A. Well, there are -- again, it would  
18 depend upon what you're trying to grow and the  
19 conditions of the site. But there are a variety of  
20 intensive silvicultural methods, and in the definition  
21 it just says artificial regeneration and tending  
22 techniques.

23 The artificial regeneration could start  
24 with the site preparation, the planting or seeding of  
25 the area, and the tending operations could range --

1 include a variety of options from release programs to  
2 pruning, perhaps even spacing of the stands.

3 Q. What do you mean by release program?

4 A. Release. If you had severe  
5 competition on the area and you felt that you had to  
6 release the plantation for its survival, or in some  
7 cases a release could be used just to hopefully promote  
8 its growth so it will reach maturity at a faster age,  
9 that would be a release program.

10 Q. What kind of activity does one have  
11 to engage in in order to release such a plantation? I  
12 mean, you say release. I'm not too sure what you mean,  
13 and what do you have to do?

14 A. Release would involve either slowing  
15 down the growth of the trees that are competing with  
16 the target species or the crop species and slow down  
17 growth -- you can either slow it down or kill that  
18 other species.

19 Q. How?

20 A. There's different ways to do that.  
21 You can do it manually, you can do it chemically, and  
22 I'm not too sure what the other one is, but in certain  
23 areas they are doing it with animals. I'm not too sure  
24 what you would call that.

25 Q. Do you accept the proposition, Mr.



1 Benson, that where in fact you're going to practice  
2 that kind of forestry, that the option should be open,  
3 where necessary, to release plantations through the  
4 aerial application of herbicides?

5 A. This is another difficult question,  
6 and I have my own feelings about herbicides and there's  
7 the feelings of Forests for Tomorrow.

8 Q. I'm talking about -- just make sure  
9 that we keep -- I'm asking you from a silvicultural  
10 point of view.

11 A. From a strictly --

12 Q. We know, we have heard lots of  
13 evidence about concerns.

14 A. Oh, okay. Okay, fine.

15 Q. We know there are concerns about the  
16 use of herbicides, and I'm talking about now, in  
17 thinking about the regeneration and the survival of the  
18 plantations that you were talking about.

19 A. From a strictly silvicultural point  
20 of view, if you're looking at perhaps the easiest way,  
21 then you would be looking at using, more than likely, a  
22 herbicide.

23 Q. Would you agree that in some cases  
24 the easiest way would involve the aerial application of  
25 that herbicide?

1                   A. Aerial would certainly be easier than  
2     the ground application.

3                   Q. You have stred in your evidence,  
4     sir, the importance of dollars in profit or whatever,  
5     there has been evidence before -- well, there has been  
6     evidence before the hearing that it is cheaper in some  
7     circumstances, if you have to release a plantation, to  
8     do it through the aerial application of herbicides than  
9     through the manual tending of that.

10                  In that situation, based on your evidence  
11     and the importance of economics, can I assume correctly  
12     that you would support the use of the aerial  
13     application of herbicides in that situation?

14                  A. In a situation we're talking about,  
15     and, yes, generally it would be cheaper to apply the  
16     herbicide aerially rather than do a manual type of  
17     release.

18                  Q. Now, you indicated that for these  
19     sites that you had identified they would have a  
20     potential for higher yields per hectare than the  
21     average sites for the area.

22                  How would you go about determining what  
23     the average site? Is that sort of, like, the average  
24     yield you were getting per hectare off of a management  
25     unit or in a region or...

1           A. Well, there's different approaches  
2 and there's probably two different basic approaches  
3 being used in Ontario, and the one approach is the FEC  
4 system where they're trying to classify the land and  
5 then they're trying to relate productivity of that land  
6 to the particular sites.

7           The other way that was used was in the  
8 northeastern region where they used a basis of land  
9 forms to classify the area and then tried to associate  
10 productivity of the different species with those land  
11 forms, and they also went a little bit further where  
12 they tried to figure out, what were the most productive  
13 sites in that particular region, and I believe they  
14 used the basis of mill location and the MAI of the  
15 sites.

16           I 'm not too sure if they used the other  
17 feature, accessibility, but they did use those other  
18 two features.

19           Q. Okay, thank you. Turn to page 67 in,  
20 the second full sentence you state:

21           "Spacing of a plantation may produce the  
22 same volume as a non-spaced plantation or  
23 natural stand, but will have a mean  
24 annual increment curve that will peak  
25 sooner."

1 MADAM CHAIR: What page are you on, Mr.  
2 Freidin?

3 MR. FREIDIN: I'm sorry, Madam Chair, 67.

4 MADAM CHAIR: Thank you.

5 MR. FREIDIN: Second full paragraph in  
6 the first sentence.

7 Q. Does that mean that you get the same  
8 volume in a shorter period of time with spacing of a  
9 plantation off the same area?

10 A. That would be correct, yes.

11 Q. Do you agree that that is regarded as  
12 a valid objective of intensive management?

13 A. For intensive managing an area, yes,  
14 that is a valid objective.

15 Q. If intensive management gives you  
16 greater volume in less time off the same area, do you  
17 believe that that could constitute a valid reason to  
18 use it, if in fact you were projecting a shortfall in  
19 wood supply in the future?

20 A. Even without projecting a shortfall  
21 in wood, if you could economically produce wood on a  
22 area of high productivity, then I think that would be  
23 the way to go, rather than to try more intensive  
24 management or even natural management on areas that are  
25 going to be either less profits or even at a cost.



1 Q. In the situation I described where  
2 you in fact were projecting a shortfall of wood supply,  
3 having regard to your answers about greater volume in a  
4 shorter period of time?

5 A. Yeah, in a general...

6 Q. I take it in that situation you would  
7 not advocate the prohibition of the use of artificial  
8 to address that wood supply situation?

9 A. No, and I think you're talking here  
10 about a highly productive -- we're still on the highly  
11 productive site and we're talking about the increase in  
12 the yield on this highly productive site?

13 Q. No, we're not talking about a highly  
14 productive site now, I'm sorry.

15 A. Oh, I'm sorry. Okay, then I  
16 didn't...

17 Q. I'm talking about on any site. We're  
18 already going to be using those intensive management  
19 techniques on the sites that we talked about before.  
20 I'm talking about, where you can have a wood supply  
21 problem, even though you're intensively managing  
22 certain set aside sites, if you've got other sites and  
23 if you know to address dress that wood supply problem  
24 you can get increased volume in a shorter period of  
25 time on the same area, would you not agree that there

1       should be the ability to -- the option to use  
2       artificial on that site in those circumstances?

3                   A.   There could be that option but, you  
4       know, I'd have to go back and say, why is there that  
5       wood supply problem, how did we get into that  
6       situation.

7                   Q.   Well, let's not ask another question,  
8       let's assume that you've got the wood supply problem,  
9       let's say that is reality.

10                   Given that reality, do you not believe  
11       that there should be the option to in fact use  
12       intensive management to increase the volume production  
13       in a shorter period, increase the volume production in  
14       order to meet the wood supply problem?

15                   A.   If you have an existing wood supply  
16       problem and you're trying to increase the wood supply,  
17       you would really want to do more of an analysis to see:  
18       Is this really worthwhile trying to sustain this  
19       Industry in the long-term in this particular area using  
20       intensive forest management.

21                   I think what you're trying -- meant with  
22       your -- take your question different ways.  If you had  
23       the problem of trying to meet, say, just a short blip  
24       in the wood supply situation in the future, would you  
25       practice this particular intensive management; this is

1       presuming we couldn't get it from another region or  
2       district, we have all our wood supply models set up and  
3       so on, and we have got a little blip in our wood supply  
4       situation.

5                   In a case like that, well then, you might  
6       want to consider that, presuming that that wood supply  
7       problem will actually come about.

8                   Q.   Thank you.

9                   MR. FREIDIN:   This might be a good place  
10      to break, Madam Chair.

11                  MADAM CHAIR:   Thank you, Mr. Freidin.

12                  Thank you, Mr. Benson.   We will see you  
13      Tuesday morning at 10:30.

14                  THE WITNESS:   Right.   Thank you, Madam  
15      Chair, too.   I would like to thank you for your  
16      consideration and everyone else that has had to put up  
17      with my slow reading.

18                  MADAM CHAIR:   We haven't found your  
19      reading slow in the least.   We will see you Tuesday,  
20      thank you.

21                  THE WITNESS:   Thank you.

22                  MADAM CHAIR:   Are you able to catch a  
23      flight down from Thunder Bay in the morning.

24                  THE WITNESS:   Either that or Monday  
25      evening I'll catch a flight.

1                   MADAM CHAIR: Well, if there's a problem  
2 with flights, then we can accommodate that, if it saves  
3 you coming in the night before, which is what Mr.  
4 Martel does, he comes down in the morning of the first  
5 day back.

6                   MR. MARTEL: We established it when  
7 everybody was coming north to see us, Mr. Benson, long  
8 before you and I.

9                   MADAM CHAIR: Thank you.

10 --- (witness withdraws)

11                   MR. FREIDIN: So it's 10:30?

12                   MADAM CHAIR: Tuesday morning, or  
13 thereabouts Tuesday morning. If anyone isn't  
14 interested in scoping Forests for Tomorrow Panel 7,  
15 then we're finished for the day.

16 ---Discussion off the record

17                   MR. MARTEL: Where are your two witnesses  
18 from on the next Panel 7?

19                   MS. SWENARCHUK: One witness is from  
20 Ottawa and the other one is from Hamilton.

21                   So if we can start with that question, I  
22 of course am happy to go with the Board's decision, I  
23 was hoping that if we were to begin next week we would  
24 begin and finish the direct in two days.

25                   It appears now that we won't have two



1 days to do that. Again, it's unusual to have the  
2 direct -- have a 10-day break and then commence  
3 cross-examination, but it would be even more unusual to  
4 break up the direct and, to be frank - and, again, I  
5 won't even make a recommendation, I'm simply pleased to  
6 do whatever the Board requests - what I would keep in  
7 mind though is that I don't know if the Board, like me,  
8 has found this witness statement and this material  
9 particularly dense, I do find it dense, and --

10 MR. FREIDIN: How are you using that  
11 term?

12 MS. SWENARCHUK: I really do think it  
13 might be of most assistance to the Board to hear the  
14 direct evidence all at once because, frankly, the goal  
15 that I've set in the direct evidence is to attempt to  
16 interpret the evidence in much more comprehensible  
17 language, and whether that's lessened by breaking up  
18 the direct as well as removing the direct from the  
19 cross, I don't know, but I think that is a  
20 consideration with this material.

21 ---Discussion off the record

22 MR. MARTEL: What do you think if we  
23 might hear the panel in Sudbury?

24 MADAM CHAIR: Mr. Martel wants to get  
25 through this hearing with at least some evidence being

1 heard in Sudbury.

2 MR. CASSIDY: Capreol.

3 MR. MARTEL: Better still even.

4 MADAM CHAIR: Well, Mr. Freidin, the  
5 Board is hesitant to give you all of next week to carry  
6 on with your cross-examination. You will be finished  
7 at the latest--

8 MR. FREIDIN: I will be finished at the  
9 latest, you're asking me?

10 MADAM CHAIR: Yes. On Wednesday.

11 MR. FREIDIN: Some time on Wednesday.

12 MADAM CHAIR: How long will your  
13 re-examination take, Ms. Swenarchuk?

14 MS. SWENARCHUK: Not long at this point,  
15 unless...

16 MADAM CHAIR: And I am also reluctant to  
17 have the Board sit on Friday because of Mr. Martel's  
18 travel schedule and the possibility that we might have  
19 to sit the following Friday to finish Mr. Maser. That  
20 is something that we have kept open in the event that  
21 we have to do that.

22 I don't think it's fair for Mr. Martel to  
23 sit those kind of hours too many weeks in a row.

24 MS. SWENARCHUK: The other factor that I  
25 was going to ask the Board about, is that it is

1 extremely difficult for Dr. Muller not to fulfill his  
2 teaching requirements on Wednesday afternoons, and I  
3 had asked him, if he was to commence next week, if he  
4 would attempt to reschedule all of his classes for  
5 Wednesday until earlier in the week. He's going to try  
6 to do that.

7 For subsequent weeks I'm in the position  
8 of having to request of the Board that the Board not  
9 sit Wednesday afternoons on this panel. Now, I  
10 sincerely hope that that doesn't mean more than one  
11 week that we would lose that time, but it seems to be  
12 very difficult for him to rearrange all of his classes.

13 MADAM CHAIR: The Board will finish  
14 hearing your evidence for Panel 5 next week and we  
15 won't begin Panel 7 until Panel 6 is finished, all  
16 right, which means that we would -- you would begin  
17 your examination-in-chief Tuesday February the 5th  
18 or --

19 MS. SWENARCHUK: Wednesday, depending on  
20 when Mr. Maser finishes.

21 MADAM CHAIR: I thought Mr. Maser could  
22 just be here Monday and not Tuesday.

23 MR. LINDGREN: He's here for the Monday  
24 and there's a possibility that he would be available on  
25 the Tuesday, if that is necessary. I've yet to confirm

1       that with him, that was the gist of the conversation I  
2       had with him prior to Christmas.

3               MADAM CHAIR: All right. Then you will  
4       begin, Ms. Swenarchuk, on either Tuesday or Wednesday.  
5       What are those dates, February the --

6               MR. FREIDIN: 5th and 6th.

7               MADAM CHAIR: 5th and 6th. Thank you.

8               MS. SWENARCHUK: Now, I would just like  
9       to say something about the interrogatories and  
10       statements of issue, and I assume that these dates will  
11       eliminate any problem my colleagues have had.

12               Interrogatories are ready today to go out  
13       and I would like to explain, since you will be seeing  
14       various comments in the statements of issue about them  
15       not going sooner, the difficulty that frankly we've  
16       had.

17               The priority that Forests for Tomorrow's  
18       very small staff have been instructed by me to put on  
19       issues is that the No. 1 priority is not to miss  
20       hearing days; in other words, to first of all complete  
21       the work that is necessary to keep the case moving in  
22       front of you, and that has meant delays in processing  
23       interrogatories for which we apologize.

24               However, I don't in fact believe that the  
25       parties have as yet been prejudiced or will be in any



1 of the remaining panels, and with regard to the Panel 7  
2 materials, they are available and will be available to  
3 the parties today.

4 I would just note that the responses note  
5 additions that we have made in filing source book  
6 materials with the Board and I would just like to add  
7 to that list that I'm going to be filing with you today  
8 to add to the source book II.

9 Two articles, one Patterson and Sorg  
10 entitled: Toward the Measurement of Total Economic  
11 Value, which Mr. Lindgren informs me was in fact  
12 already filed in the Panel 4 source book, and another  
13 article Sorg and Loomis, Imperical Estimates of a  
14 Managing Forest, Values and Comparative Review.

15 So these will now be available to the  
16 Board to review.

17 MADAM CHAIR: Thank you, Ms. Swenarchuk.

18 MS. SWENARCHUK: The other materials on  
19 which interrogatory questions were asked are explained  
20 in the interrogatory responses.

21 MADAM CHAIR: Thank you.

22 Mr. Cassidy, that responds to your  
23 concern?

24 MR. CASSIDY: Yes, it does. Mr. Cosman  
25 has asked me to express his regret for being late to

1 attend today, but he tried to get back on an airplane  
2 this afternoon from Ottawa. He was grounded in Ottawa  
3 as a result of freezing rain.

4 As he indicated in his correspondence, on  
5 receipt of the interrogatories he will, with review  
6 from the client, file a further statement of issues.  
7 With respect to the time frame or estimate of his  
8 cross-examination, when he files his statement of  
9 issues he will indicate at that time how long he  
10 intends to be in his cross-examination.

11 MADAM CHAIR: All right. The Board has a  
12 few comments it would like to give you, Ms. Swenarchuk,  
13 to help your witnesses focus some of their evidence for  
14 the Board.

15 My first question is actually to you  
16 rather than to your witnesses, and the Board has  
17 noticed that you've organized this witness statement to  
18 address both the economic issues and the planning  
19 issues, and you address whether or not the Class EA  
20 fullfils the requirements of the EA Act.

21 And the Board wishes to know from you  
22 whether you consider this to be the central piece of  
23 your evidence about whether the Class EA is acceptable,  
24 or whether this is one aspect of your evidence that  
25 you'll be putting before the Board on the issue of

1 whether the Class EA is acceptable.

2 We're assuming this is just from an  
3 economic analysis point of view that we're hearing this  
4 topic discussed by these two witnesses.

5 MS. SWENARCHUK: I will have to  
6 contemplate that question, Madam Chair.

7 MADAM CHAIR: All right.

8 MR. FREIDIN: Madam Chair, I think it  
9 might be appropriate for me to address that specific  
10 issue.

11 You'll note from our statement of issues  
12 in Item No. 3(c) that we have asked for confirmation  
13 that the witnesses are not qualified and do not intend  
14 to provide the Board with a legal interpretation of the  
15 meaning and the requirements of the Environmental  
16 Assessment Act and that sections -- well, just stopping  
17 there.

18 There has been a meeting between Ms.  
19 Swenarchuk and myself to discuss this issue and  
20 although it may be the subject matter of a lengthier  
21 submission prior to the commencement of Panel 7, I can  
22 advise you that Forests for Tomorrow and the Ministry  
23 of the Environment agree that these witnesses are not  
24 qualified to comment on whether the Environmental  
25 Assessment Document meets the legal requirements as set

1 out in the Environmental Assessment Act, as that is a  
2 matter which is actually a legal matter which we will  
3 argue at the end of the case.

4 The evidence of course may be relied upon  
5 by Ms. Swenarchuk as she sees fit, but that when you  
6 are reading this witness statement, it should not be  
7 assumed, or their evidence should not be taken as being  
8 evidence upon which you can make the legal  
9 determination. You should not accept their evidence,  
10 when they say something doesn't meet the EA  
11 requirement, as a matter of law that statement would  
12 not have any effect.

13 MADAM CHAIR: Well, certainly it's the  
14 Board's understanding that we will be hearing about  
15 this in argument at the end of the case and we want to  
16 know now, as we listen to these witnesses, are we  
17 listening to the issues of planning and economic  
18 analysis pertaining to the EA and whether they think  
19 it's an acceptable way to do it, as opposed to whether  
20 the EA actually fulfills the requirements of the EA  
21 Act.

22 MS. SWENARCHUK: Your characterization, I  
23 think, is entirely accurate. We concede that these  
24 experts are not lawyers and are not here to provide  
25 legal opinions with regard to fulfilling the



1 requirements of the Environmental Assessment Act.

2 As I've discussed with Mr. Freidin, we  
3 think it is appropriate that, as Dr. Muller will  
4 explain, within the discipline of economics in his  
5 opinion there is an accepted way or a mainstream  
6 approach to the question of interpreting a statement  
7 such as occurs in the Environmental Assessment Act,  
8 that the Act exists for the purpose of wise management  
9 of forests, and that part of his testimony will include  
10 his opinion as an economist as to how economists would  
11 interpret that phrase, but not certainly how the law  
12 would interpret it.

13 MADAM CHAIR: Thank you.

14 The Board's first comment and question to  
15 the witnesses is whether they believe that some of the  
16 assumptions they are using in their economic analysis  
17 of forest management and their discussion on the  
18 provincial economic matters associated with timber  
19 management, we want to know --

20 MS. SWENARCHUK: Excuse me for a moment.  
21 I wonder if you could slow down a bit.

22 MADAM CHAIR: I am sorry. We want to  
23 know if your witnesses believe some of their  
24 assumptions - and we have a list of two or three or  
25 four - are reasonable assumptions, or whether they're

1 assumptions that are used in the extreme to be more  
2 useful in measuring net social benefits?

3 And some of the assumptions that the  
4 Board would make note of would be whether forest  
5 industry jobs in northern Ontario can be substituted by  
6 other employment; whether the diversification of local  
7 northern communities is possible; and whether one can  
8 look at the benefits of the forest industry and define  
9 it to accrual of the logging activities of forest  
10 industry.

11 MS. SWENARCHUK: Could you repeat that,  
12 please?

13 MADAM CHAIR: Again, one of the  
14 assumptions of the witnesses is that they want to look  
15 at the benefits of the forest industry as being the  
16 benefits from logging only and not the benefits of  
17 other parts of the forest industry.

18 And there is a fourth assumption that the  
19 industry contributes to community instability.

20 And the Board wishes to know whether the  
21 witnesses think these are reasonable and acceptable  
22 assumptions to make in measuring net social benefit or  
23 whether they have selected assumptions narrowly in  
24 order to get at the type of measurement they wish to  
25 make.

1                   A second matter the Board wishes to  
2     receive clarification on is the economic data that the  
3     witnesses have used or looked at that would permit a  
4     comparison between the costs of modified cutting  
5     techniques and clearcutting and artificial and natural  
6     regeneration.

7                   MS. SWENARCHUK: The economic data the  
8     witnesses have seen that would permit...?

9                   MADAM CHAIR: Their comparisons between  
10    the costs of modified cutting techniques and  
11    clearcutting and artificial and natural regeneration.

12                   When the Board reviewed their  
13    cost/benefit analysis, perhaps it wasn't clear to us  
14    which costs they were looking at with respect to  
15    arriving at a conclusion that modified cutting  
16    techniques are better in some circumstances, and we  
17    want to know if they in fact have data on those four  
18    activities?

19                   MS. SWENARCHUK: Data on the four  
20    alternatives?

21                   MADAM CHAIR: No, on the four activities,  
22    the four activities are in the four alternatives, but  
23    it's modified cutting techniques versus clearcutting  
24    and artificial versus natural regeneration.

25                   The Board is also interested in knowing

1       whether the witnesses can give us a brief summary of  
2       specific examples or studies that place economic  
3       valuations on non-timber resources in northern Ontario.

4               And related to that question, it is the  
5       Board's desire to know how useful or generalizable do  
6       your witnesses feel U.S. data is to the situation in  
7       northern Ontario, and the U.S. data being with respect  
8       to the demands on recreational forest use in the United  
9       States.

10              I think the Board will have more  
11       questions as we go through the evidence, and we  
12       appreciate the fact that you are characterizing it as  
13       being dense. It's complicated and any discussion of  
14       economics will necessarily be complicated.

15              Did you have any questions you wanted to  
16       ask the parties, Ms. Swenarchuk, with respect to their  
17       statements of issue?

18              MS. SWENARCHUK: No, I don't.

19              MADAM CHAIR: Do any of the parties have  
20       anything they wish to put to Ms. Swenarchuk now?

21              MS. SEABORN: I think, Madam Chair, I'll  
22       wait and review the interrogatory responses. I think  
23       any questions I would have would arise as a result of  
24       that review.

25              MADAM CHAIR: All right. Does anybody



1 have an idea of how long they'll be in  
2 cross-examination of these witnesses?

3 MR. FREIDIN: It's really difficult. I  
4 am going to estimate two days.

5 MS. SEABORN: I will be less than a day,  
6 Madam Chair, but I'm not sure how much less than a day,  
7 and I can certainly give the Board that estimate after  
8 we begin the evidence-in-chief.

9 MADAM CHAIR: Do you know from Mr.  
10 Cosman, Mr. Cassidy, whether he would think he needs  
11 more than a day?

12 MR. CASSIDY: I have had one very brief  
13 conversation about this and he was talking about more  
14 than a day, but cautioned me to tell the Board that  
15 that would be subject to whatever the answers to the  
16 interrogatories are, which is what I said in my earlier  
17 remarks.

18 MADAM CHAIR: Thank you.

19 Mr. Hanna?

20 MR. HANNA: Madam Chair, it will likewise  
21 depend somewhat on the evidence-in-chief, and plans  
22 even more so on how much concurrence there is with the  
23 questions that are asked and the positions of the  
24 parties and whether or not the witnesses -- in terms of  
25 how much difference of opinion there is, and that is

1 always very hard to anticipate ahead of time.

2 I would like to say it's going to be a  
3 day and no more, but it might be two days.

4 MADAM CHAIR: All right. Well, probably,  
5 Ms. Swenarchuk, you can survey the parties again after  
6 they look at the interrogatories and give you some  
7 better sense of how long it will be.

8 Is there anything else with respect to  
9 Panel 7.

10 Mr. Freidin?

11 MR. FREIDIN: I'm just wondering, is it  
12 too early to consider dates for statements of issue for  
13 Panel 8, or I think we already set them earlier on.

14 MADAM CHAIR: No, we haven't set them for  
15 8, 9 or 10. I think we should try to put some dates  
16 together so we can do a little planning.

17 MR. FREIDIN: We should consider that and  
18 deal with that another day then?

19 MADAM CHAIR: I think we don't like to  
20 leave one session without having at least the next  
21 scoping session scheduled.

22 MS. SWENARCHUK: We're juggling a lot of  
23 perpatetic witnesses and trying to decide what the line  
24 up should be after this.

25 MADAM CHAIR: Mm-hmm.

1 MS. SWENARCHUK: And it appears to us  
2 that after the economists we will have to call our  
3 wildlife biodiversity panel, and it will probably be  
4 necessary - and I can't confirm this now - to have set  
5 dates for Dr. Legator on the material pertaining to  
6 chemicals.

7 MADAM CHAIR: Mm-hmm.

8 MS. SWENARCHUK: Mr. Smith then can  
9 follow if necessary. So if you are to set another  
10 date, I ask then that it be with regard to the wildlife  
11 panel, and I'll be back to the Board as soon as we know  
12 the situation with Dr. Legator.

13 MR. FREIDIN: Madam Chair, I'm just  
14 wondering, before we go on, just so we can advise our  
15 people and arrange our affairs, is the Board in  
16 position to address Ms. Swenarchuk's request we not sit  
17 on Wednesday afternoons for Panel No. 7? We assume  
18 that -- well, can you address that issue now?

19 MADAM CHAIR: Well, if it can't be  
20 avoided then we won't be able to sit. You're hoping  
21 that some arrangement might be -- if we can't sit, we  
22 can't sit. If there's no witness, we can't sit.

23 MR. FREIDIN: Oh, I'm sorry, I misheard  
24 her. I thought she said that he could not rearrange  
25 his affairs.

1                   MADAM CHAIR: Well, if that's the case  
2 then we won't be sitting Wednesday afternoons.

3                   MR. FREIDIN: All right. Well then, Ms.  
4 Swenarchuk, can advise us.

5                   MADAM CHAIR: Well, it looks like two  
6 Wednesday afternoons we wouldn't be sitting.

7                   MR. FREIDIN: Thank you.

8                   MADAM CHAIR: So your wildlife panel is 9  
9 or 10, Ms. Swenarchuk?

10                  MR. LINDGREN: It's Panel 9, Madam Chair.

11                  MADAM CHAIR: Panel 9, and you want to  
12 scope that next?

13                  MR. LINDGREN: I believe so, and I think  
14 the interrogatories should be going out next week, and  
15 I would suggest that perhaps the statement of issues  
16 could be due the following week, and that would be the  
17 week of the 28th.

18                  If we could pick a date during that week,  
19 perhaps scope it a day or two after the statements of  
20 issue were due. I'm suggesting perhaps that statement  
21 of issues for the wildlife panel be due on January  
22 28th, which is the Monday, and perhaps scoping on  
23 January 30th.

24                  MADAM CHAIR: January 30th we're hearing  
25 submissions on negotiations, terms and conditions.



1 MR. LINDGREN: Well, I have no real  
2 preference, just those were two days that lucked out to  
3 me. You can do it during the following week.

4 MADAM CHAIR: Is that getting too late,  
5 or is that...

6 MR. LINDGREN: I don't think so.

7 MADAM CHAIR: I don't think so.

8 MR. LINDGREN: No. Perhaps we could deal  
9 with statement of issues on January 31st.

10 MADAM CHAIR: Is that the Monday?

11 MR. LINDGREN: No, that is the Thursday,  
12 and maybe we could scope the following Monday.

13 MADAM CHAIR: And what date is the  
14 Monday?

15 MR. LINDGREN: The 4th I believe.

16 MADAM CHAIR: All right. Then the  
17 deadline for the submission of statements of issues  
18 will be Thursday, January the --

19 MR. LINDGREN: 31st.

20 MADAM CHAIR: January 31st, and the  
21 scoping session will be at 4:00 p.m. on Monday,  
22 February the 4th for Forests for Tomorrow's Panel--

23 MR. LINDGREN: 9.

24 MADAM CHAIR: --9. Thank you.

25 MR. LINDGREN: Thank you, Madam Chair.

1 MADAM CHAIR: And we won't worry about 8  
2 and 10 until we sort that out.

3 All right. Then thank you, we will see  
4 you on Tuesday morning at 10:30.

5 MS. SWENARCHUK: Thank you.

6 ---Whereupon the hearing adjourned at 4:30 p.m., to be  
7 reconvened on Tuesday, January, 22nd, 1991,  
8 commencing at 10:30 a.m.

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